

**REGION 6 (CALIFORNIA) 700 MHz/4.9 GHz REGIONAL PLANNING  
COMMITTEE**

---

May 12, 2005

Ms. Marlene H. Dortch, Secretary  
Federal Communications Commission  
Office of the Secretary  
445 12th Street, SW  
Washington, DC 20554

Re: Region 6 - 4.9 GHz Plan in accordance with WT Docket 00-32

Dear Ms. Dortch:

Pursuant to WT Docket 00-32, § 90.1211 (regarding submission of a 4.9 GHz regional plan), FCC 04-185 (plan submission stay order), and the release date of FCC 04-265, the Region 6 (Northern California) 700 MHz/4.9 GHz Regional Planning Committee is herewith submitting the attached plan titled "REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND" for your review and approval.

If you have any questions regarding the proffered Region 6 plan, please contact me either by email, phone, or mail employing the contact information below.

Thank you for your consideration.

Sincerely,



William De Camp, Chair  
Region 6 – 700 MHz/4.9 GHz Regional Planning Committee

c/o State of California  
Department of General Services  
Telecommunications Division  
601 Sequoia Pacific Boulevard, MS:WH7  
Sacramento, CA 95814  
(916) 657-9205  
[william.decamp@dgs.ca.gov](mailto:william.decamp@dgs.ca.gov)

Attachment

WDC:wdc\4.9 GHz Region 6 Plan Version 5-12-05 Final.pdf

---

# REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

## OFFERING INCENTIVES FOR COOPERATION



**REGION 6 (Northern California) REGIONAL GUIDELINES AND  
RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

**TABLE OF CONTENTS**

<b>1 EXECUTIVE SUMMARY .....</b>	<b>5</b>
Indemnification of Region 6 .....	7
<b>2 REGION 6 REGIONAL PLANNING COMMITTEE (RPC) OVERVIEW .....</b>	<b>7</b>
<b>3 RPC MEMBERSHIP .....</b>	<b>10</b>
<b>4 REGION DESCRIPTION .....</b>	<b>10</b>
4.1 Counties Comprising Region 6 and Adjacent Regions.....	10
4.2 Incorporated Cities within Region 6 .....	14
Alameda County .....	14
Humboldt County .....	14
Mendocino County.....	14
Merced County .....	14
Inyo County .....	14
Kings County .....	14
Modoc County .....	14
Alpine County .....	14
Del Norte County .....	14
Mono County .....	14
Amador County.....	14
Lake County .....	14
El Dorado County .....	14
Monterey County .....	14
Lassen County.....	14
Fresno County .....	14
Butte County.....	14
Madera County .....	14
Marin County .....	14
Calaveras County .....	14
Napa County.....	14
Colusa County .....	14
Contra Costa Co.....	14
Glenn County.....	14
Nevada County.....	14
Mariposa County .....	14
Placer County .....	15
Sierra County.....	15
Sutter County.....	15
Siskiyou County.....	15
Tehama County .....	15
Plumas County .....	15
Trinity County .....	15
Sacramento County.....	15
Tulare County .....	15
Solano County .....	15
Santa Clara Co.....	15
Sacramento City .....	15
San Benito County.....	15

# REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

Tuolumne County .....	15
Sonoma County.....	15
San Francisco Co. ....	15
Yolo County .....	15
San Joaquin Co. ....	15
Yuba County.....	15
Santa Cruz Co. ....	15
Stanislaus County.....	15
San Mateo County.....	15
Shasta County .....	15
Table 4.1: Twelve Counties in Region 6 Comprising ≈75% of the Population .....	18
<b>5 NOTIFICATION .....</b>	<b>19</b>
5.1 Convening 4.9 GHz RPC Meeting.....	19
5.2 Second Combined 700 MHz/4.9 GHz RPC Meeting .....	19
5.3 Third Combined 700 MHz/4.9 GHz RPC Meeting .....	19
5.4 Fourth Combined 700 MHz/4.9 GHz RPC Meeting .....	19
5.5 A California Statewide Broadband Applications and Technologies Survey.....	19
5.5.1 Regional Planning and Spectrum .....	20
5.5.2 Eligibility .....	21
5.5.3 Solicitation of Interest.....	21
5.5.4 Questionnaire.....	21
5.6 List of all Region 6 – 700 MHz/4.9 GHz RPC Meetings and Attendees .....	22
<b>6 REGIONAL PLAN ADMINISTRATION .....</b>	<b>22</b>
6.1 Operations of the Regional Plan Committee .....	22
6.2 Part 90 Rules Governing Use of the 4940-4990 MHz band .....	22
6.3 Incentives for Cooperation.....	23
6.4 Adjacent Region Coordination.....	24
6.5 Dispute Resolution .....	24
<b>7 INTERFERENCE PROTECTION.....</b>	<b>24</b>
<b>8 PLANNING GUIDELINES.....</b>	<b>25</b>
8.1 Developed Region 6 – 4.9 GHz Planning Guidelines.....	26
8.1.1 Shared Systems Strongly Advocated .....	26
8.1.2 Incident Area Network Preference .....	26
8.1.3 Open Standards.....	26
8.1.4 CAPRAD System Use.....	26
8.1.5 Point-to-Point Links.....	26
8.1.6 Employing the California Standardized Emergency Management System.....	27
8.1.7 Air-to-Ground One-Way Video Links .....	27
<b>EXHIBITS .....</b>	<b>28</b>
<b>EXHIBIT A.....</b>	<b>29</b>
Region 6 – 700 MHz/4.9 GHz RPC Membership & Planning Affiliates .....	29
<b>EXHIBIT B.....</b>	<b>41</b>
Comprehensive List Of Region 6 – 700 MHz/4.9 GHz Meetings And Attendees.....	41
<b>EXHIBIT C.1.....</b>	<b>64</b>
April 2004 Survey For Determining Each Eligible Agency's Need For Public Safety Frequencies In The 4.9 GHz Band.....	64
<b>EXHIBIT C.2.A .....</b>	<b>65</b>

REGION 6 (Northern California) REGIONAL GUIDELINES AND  
RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

Synopsized Survey Results - Summary A :..... 65

Agency Inputs Regarding Resources and Technologies ..... 65

**EXHIBIT C.2.B** ..... 66

Synopsized Survey Results - Summary B :..... 66

Agency Inputs Regarding Applications and their Priorities..... 66

## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

### 1 Executive Summary

In its Memorandum Opinion and Order (MO&O) and Third Report and Order (R&O) [see FCC 03-99] relative to *“The 4.9 GHz Band Transferred from Federal Government Use”*, *WT Docket Number 00-32*, the FCC allocates spectrum from 4940-4990 MHz to the public safety community and outlines operational and technical requirements for its usage. The FCC’s decision regarding the role of Regional Planning Committees (RPCs) and regional planning is pertinent to this plan, and as such, is synopsized as follows:

- In its proceedings relative to *WT Docket Number 00-32*, the FCC indicated *“...To facilitate the shared use of the 4.9 GHz band, each region may submit a plan on guidelines to be used for sharing the spectrum within the region”*.
- In a subsequent MO&O [see FCC 04-265], the FCC elaborated on its vision of the role of regional planning. That is, the FCC stated, *“Our primary rationale for rejecting mandatory regional planning lies in the shared-use structure we have established for the 4.9 GHz band. Applicants that meet eligibility criteria will be granted a geographic area license for the entire fifty MHz of 4.9 GHz spectrum over a geographical area defined by the boundaries of their jurisdiction -- city, county, state, etc. Licensees are required to coordinate their operations in the shared band to avoid interference, a common practice when joint operations are conducted. The functions served by Regional Planning Committees (RPCs) in the public safety segments of the 700 MHz and 800 MHz bands entail the long-term planning for the use of specific channels by discrete licensees, in bands where public safety agencies are not granted a blanket license for the entire spectrum. Nonetheless, the Commission directed each 700 MHz RPC to consider coordination procedures for the 4.9 GHz band, and that each may submit to the Commission such a plan. It envisioned that the plans would specify best practices for efficient use of the 4.9 GHz band, including, for example, procedures to allow an incident commander to take control of emergency communications pursuant to compacts made with adjacent and overlapping jurisdictions. In the event an RPC does not submit such a plan, licensees must cooperate in the selection and use of channels in order to reduce interference and make the most effective use of authorized facilities.”*
- *“Decision. We continue to believe that the technical expertise resident in the RPCs may be quite useful to new 4.9 GHz licensees, and we encourage dialog between them. However, we have not been shown that coordination of 4.9 GHz operations will be facilitated by requiring 4.9 GHz licensees to make mandatory use of the RPCs. The principal task of RPCs is to coordinate selection of specific channels for use at static base stations (and their associated mobiles). However, given the whole-band*

## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

*licensing structure that we have established and the likelihood that deployment of 4.9 GHz equipment is likely to be dynamic rather than static, it would appear impractical to formulate, in advance, an optimum distribution of channel assignments that would be universally suitable for each incident. This is not to suggest that agencies should not coordinate use of channels at an incident, or not have a process for doing so. However, we believe that that task is best undertaken by local jurisdictions, and we thus are not prepared to mandate use of RPCs for a purpose markedly different from that for which they were formed."*

In view of the FCC's vision of the role of RPCs and regional planning relative to the subject docket, the Region 6 plan is offered as best practices, or a set of "guidelines" for those eligible entities wishing to employ 4.9 GHz spectrum within Region 6. Whereas aspirant users are not required to obtain regional concurrence when utilizing 4940-4990 MHz spectrum, each is encouraged to take advantage of the services offered through the Region 6 RPC such as:

- assisting Region 6 agencies with information related to 4.9 GHz spectrum implementations
- apprising users of existing or planned applications within the band, both within their community as well as in adjacent communities (to the extent Region 6 is informed of these applications)
- acting as a *region wide clearinghouse* for documenting 4.9 GHz use in the region while contributing to the development and maturity of the band within their region as a *community resource*, available to all eligible entities.

Pursuant to § 90.1211 Regional Plan:

- this Region 6 document advocates shared use of the 4.9 GHz band. The plan comprises organizational structure and a set of guidelines to be used as a tool to assist Regional Planning Committees (RPC) in the ongoing implementation of the band and offers suggestions and recommendations for usage
- considering that public safety's exposure to broadband applications is limited to date, the Region 6 plan needs to be a dynamic document; that is, one which evolves with public safety's growing familiarity with broadband applications and technologies. Modifications will be submitted in accordance with § 90.1211

As population density and topography vary significantly within Region 6, broadband applications using 4.9 GHz in the region will also vary. The applications and operational considerations addressed in these guidelines are to be reviewed to allow Northern California public safety entities to utilize the 4.9 GHz band as they deem necessary in meeting the needs of the public safety community in and around their jurisdictions. Users are strongly urged to review

## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

the many filed comments contained in the history of Docket 00-32 to better understand the use of the band, including orders issued by the FCC on the public safety allocation of the 4940-4990 MHz spectrum under the docket to provide California agencies with as much information as possible when implementing the band.

There are important issues regarding 4.9 GHz deployments that need to be acknowledged by the applicant to ensure effective, efficient operation of the band. The Region 6 – 700 MHz regional planning committee looks forward to supporting the deployment of broadband public safety applications within Region 6 in a role supported and defined by the region.

### Indemnification of Region 6

As always, the services offered through Region 6 are free and are influenced and performed by representatives of member public safety agencies or their affiliates throughout the region. Representatives of Region 6 perform their tasks to the best of their abilities. The effectiveness and timeliness of Region 6 representatives in providing these services is contingent upon (1) the validity and timeliness of information they are provided, or are able to ascertain through searches, and (2) the time Region 6 representatives are allotted by their respective agencies to perform these ancillary services (whereas the services are important – they are clearly incidental to the primary mission of each representative’s organization). In view of these limitations and the fact that exercising the services offered through RPCs is voluntary, Region 6 senses a need to indemnify itself by stating the following:

- IN NO EVENT SHALL REGION 6 BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THESE SERVICES, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

## 2 Region 6 Regional Planning Committee (RPC) Overview

In *WT Docket Number 00-32*, the FCC stated in paragraph #40 that “...*within six months of the effective date of the rules adopted herein, the 700 MHz band regional planning committees (RPCs) must have a meeting for the express purpose of initiating consideration of coordination procedures for the 4.9 GHz band...*”, and “...*within twelve months of the effective date of the rules adopted herein, each RPC must provide the FCC with a copy of its plan.*” 47 CFR Parts 2 and 90 FCC rules pertinent to the 4.9 GHz band appeared in the Federal Register the end of June, 2003 establishing an effective date of January 30<sup>th</sup>

## **REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

2004 for the “kickoff” meeting and July 30<sup>th</sup>, 2003 to submit the plan. Region 6 held its kickoff meeting on October 29<sup>th</sup>, 2003 and is herewith submitting its plan.

Acting on a request by the National Association of Regional Planning Committees (NARPC), stay order FCC 04-185 adopted July 30<sup>th</sup> 2004 extended the submission deadline for the plan until six month after release of a decision resolving the petition for reconsideration filed by the National Public Safety Telecommunications Council (NPSTC) on July 30<sup>th</sup> 2003. The Commission’s MEMORANDUM OPINION AND ORDER (see FCC 04-265) addressing this petition for reconsideration was released on November 12<sup>th</sup> 2004. This established a new deadline for the submission of regional plans of May 12<sup>th</sup> 2005.

The first Region 6 - 700 MHz Regional Planning Committee (RPC) was held on May 16<sup>th</sup>, 2002. Don Root convened the meeting. Mr. Root’s contact information is as follows:

Donald E. Root, Jr.  
Operations Support Branch  
California Governor’s Office of Emergency Services  
3650 Schriever Ave.  
Mather, California

Phone: (916) 845-8601  
Email: [Don\\_Root@oes.ca.gov](mailto:Don_Root@oes.ca.gov)

## **REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

At the first Region 6 – 700 MHz Regional Planning Committee meeting on May 16, 2002, William De Camp was elected Region Chair for the Region 6 – 700 MHz Regional Planning Committee. He is by default the Region 6 chair for the 4.9 GHz RPC. His contact information is as follows:

William De Camp, P.E.  
State of California  
Department of General Services  
Telecommunications Division  
601 Sequoia Pacific Boulevard, MS:WH7  
Sacramento, California 95814

Phone: (916) 657-9205  
Email [william.decamp@dgs.ca.gov](mailto:william.decamp@dgs.ca.gov)

The following are also officers of the Region 6 – 700 MHz/4.9 GHz Regional Planning Committee:

**Vice Chair**  
Randall Hagar  
County of Alameda  
General Services Agency  
Communications Department  
1401 Lakeside Drive, 10<sup>th</sup> Floor  
Oakland, California 94612-4305

Phone (510) 208-9789  
Email [randall.hagar@acgov.org](mailto:randall.hagar@acgov.org)

**Secretary**  
Tim Graves  
State of California  
DGS Telecommunications Division  
601 Sequoia Pacific Boulevard  
Sacramento, CA 95814

Phone: (916) 657-9260  
Email [tim.graves@dgs.ca.gov](mailto:tim.graves@dgs.ca.gov)

**Treasurer**  
William De Camp  
(see contact information above)

## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

### 3 RPC Membership

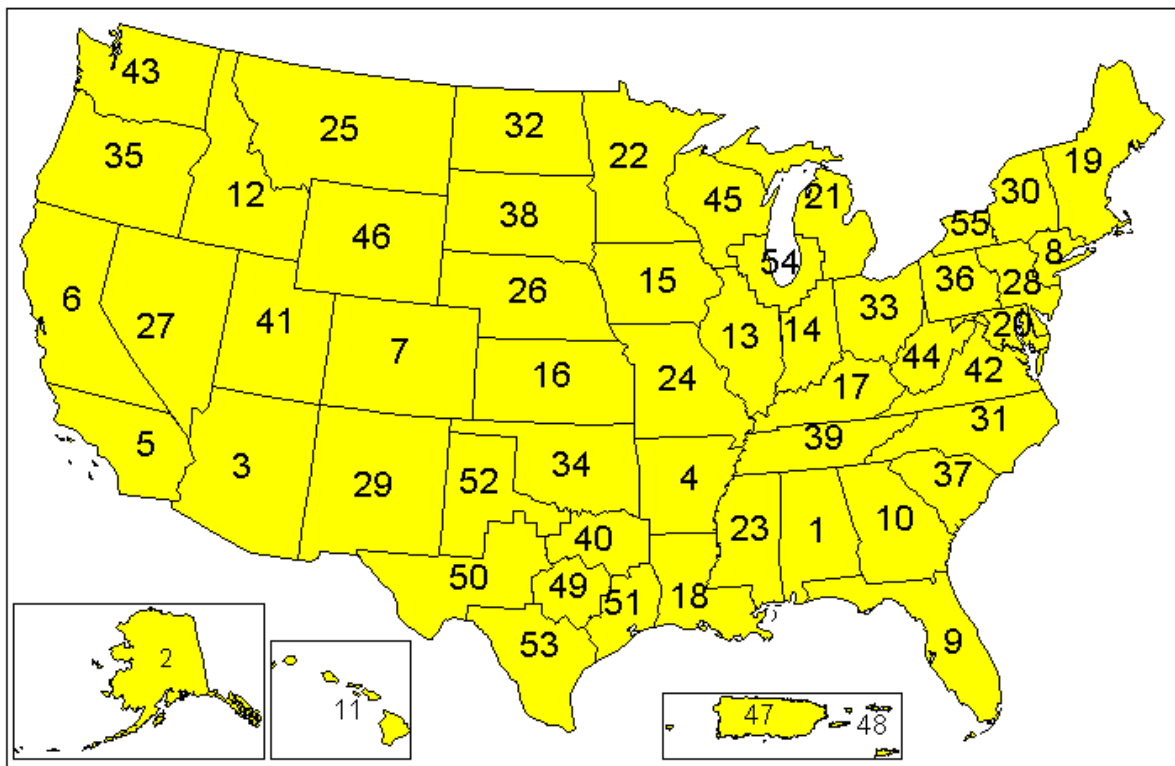
Exhibit A contains the member and planning affiliate list plus contact information for Region 6. Membership is open to any interested party. Voting membership is open to Region 6 organizations meeting the eligibility criteria found in 47 Codes of Federal Regulations (CFR) §90.1203 and §90.523. Voting and operating procedures are described in Section 6 of this plan.

### 4 Region Description

#### 4.1 Counties Comprising Region 6 and Adjacent Regions

For the purposes of public safety 4.9 GHz planning, the FCC recognizes 55 individual "Regions" distributed as shown in Figure 4.1 throughout the United States. The Northern California Region (Region 6) comprises the 48 counties of California situated north of the northernmost borders of San Luis Obispo, Kern and San Bernardino counties. For Region 6, and surrounding Region #'s 5, 27, and 35 details, please refer to Figures 4.1 through 4.5 below. Because of Arizona's close proximity to Region 6 (~50 miles), it is also included below as Figure 4.6.

**The Public Safety 700MHz Planning Regions**



**Figure 4.1: Public Safety 700 MHz/4.9 GHz Planning Regions**

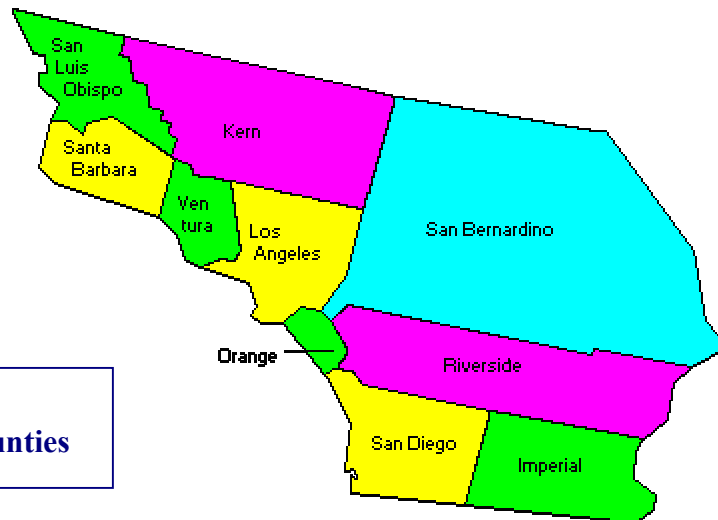
**REGION 6 (Northern California) REGIONAL GUIDELINES AND  
RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

**Region 6: Northern California**



**Figure 4.2  
Region 6 Counties**

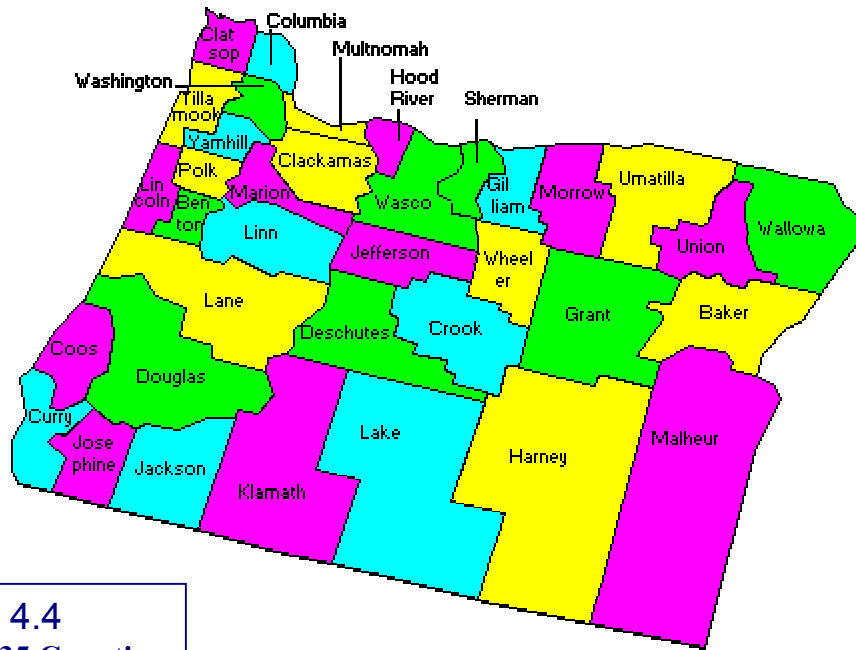
**Region 5: Southern California**



**Figure 4.3  
Region 5 Counties**

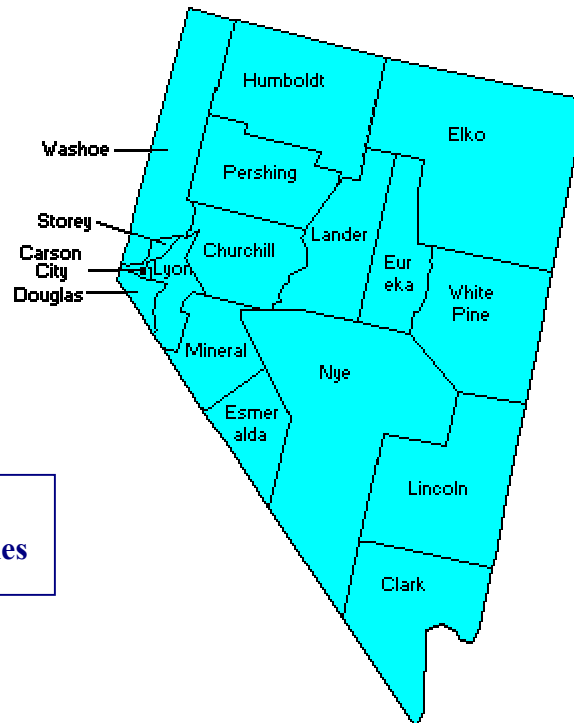
**REGION 6 (Northern California) REGIONAL GUIDELINES AND  
RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

**Region 35: Oregon**



**Figure 4.4  
Region 35 Counties**

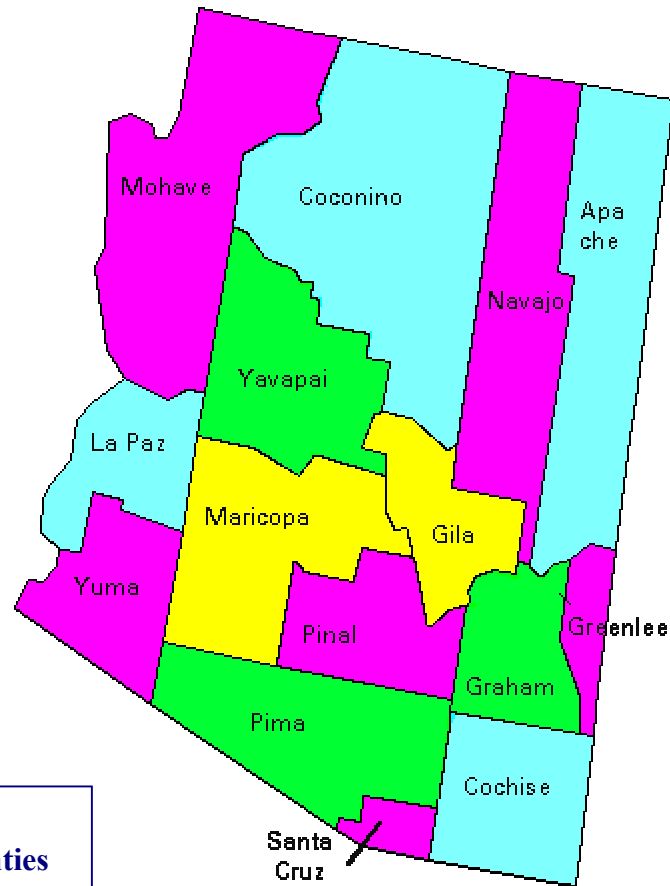
**Region 27: Nevada**



**Figure 4.5  
Region 27 Counties**

**REGION 6 (Northern California) REGIONAL GUIDELINES AND  
RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

**Region 3: Arizona**



**Figure 4.6  
Region 3 Counties**

## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

### 4.2 Incorporated Cities within Region 6

(See <http://www.dof.ca.gov/HTML/DEMOGRAP/table1.xls> for the latest list of cities by county for each of Region 6's 48 counties).

<b>Alameda County</b>	<b>CCC (continued)</b>	<b>Humboldt County</b>	<b>Mendocino County</b>
Alameda City	El Cerrito City	Arcata City	Fort Bragg City
Albany City	Hercules City	Blue Lake City	Point Arena City
Berkeley City	Lafayette City	Eureka City	Ukiah City
Dublin City	Martinez City	Ferndale City	Willits City
Emeryville City	Moraga Town	Fortuna City	
Fremont City	Oakley City	Rio Dell City	<b>Merced County</b>
Hayward City	Orinda City	Trinidad City	Atwater City
Livermore City	Pinole City		Dos Palos City
Newark City	Pittsburg City	<b>Inyo County</b>	Gustine City
Oakland City	Pleasant Hill City	Bishop City	Livingston City
Piedmont City	Richmond City		Los Banos City
Pleasanton City	San Pablo City	<b>Kings County</b>	Merced City
San Leandro City	San Ramon City	Avenal City	
Union City City	Walnut Creek City	Corcoran City	<b>Modoc County</b>
		Hanford City	Alturas City
<b>Alpine County</b>	<b>Del Norte County</b>	Lemoore City	
	Crescent City City		<b>Mono County</b>
<b>Amador County</b>		<b>Lake County</b>	Mammoth Lakes Town
Amador City City	<b>El Dorado County</b>	Clearlake City	
Ione City	Placerville City	Lakeport City	<b>Monterey County</b>
Jackson City	South Lake Tahoe City		Carmel-by-the-Sea City
Plymouth City		<b>Lassen County</b>	Del Rey Oaks City
Sutter Creek City	<b>Fresno County</b>	Susanville City	Gonzales City
	Clovis City		Greenfield City
<b>Butte County</b>	Coalinga City	<b>Madera County</b>	King City City
Biggs City	Firebaugh City	Chowchilla City	Marina City
Chico City	Fowler City	Madera City	Monterey City
Gridley City	Fresno City		Pacific Grove City
Oroville City	Huron City	<b>Marin County</b>	Salinas City
Paradise Town	Kerman City	Belvedere City	Sand City City
	Kingsburg City	Corte Madera Town	Seaside city
<b>Calaveras County</b>	Mendota city	Fairfax Town	Soledad city
Angels City City	Orange Cove city	Larkspur City	
	Parlier City	Mill Valley City	<b>Napa County</b>
<b>Colusa County</b>	Reedley City	Novato City	American Canyon City
Colusa City	Sanger City	Ross Town	Calistoga City
Williams City	San Joaquin City	San Anselmo Town	Napa City
	Selma City	San Rafael City	St. Helena City
<b>Contra Costa Co.</b>		Sausalito City	Yountville Town
Antioch City	<b>Glenn County</b>	Tiburon Town	
Brentwood City	Orland City		<b>Nevada County</b>
Clayton City	Willows City	<b>Mariposa County</b>	Grass Valley City
Concord City			Nevada City City
Danville Town			Truckee Town

**REGION 6 (Northern California) REGIONAL GUIDELINES AND  
RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

<b>Placer County</b>	<b>SMC (continued)</b>	<b>Sierra County</b>	<b>Sutter County</b>
Auburn City	Foster City City	Loyalton City	Live Oak City
Colfax City	Half Moon Bay City		Yuba City City
Lincoln City	Hillsborough Town	<b>Siskiyou County</b>	
Loomis Town	Menlo Park City	Dorris City	<b>Tehama County</b>
Rocklin City	Millbrae City	Dunsmuir City	Corning City
Roseville City	Pacifica City	Etna City	Red Bluff City
	Portola Valley Town	Fort Jones City	Tehama City
<b>Plumas County</b>	Redwood City City	Montague City	
Portola City	San Bruno City	Mount Shasta City	<b>Trinity County</b>
	San Carlos City	Tulelake City	
<b>Sacramento County</b>	San Mateo City	Weed City	<b>Tulare County</b>
	South San Francisco City	Yreka City	Dinuba City
Citrus Heights City	Woodside Town		Exeter City
Elk Grove		<b>Solano County</b>	Farmersville City
Folsom City		Benicia City	Lindsay City
Galt City	<b>Santa Clara Co.</b>	Dixon City	Porterville City
Isleton City	Campbell City	Fairfield City	Tulare City
Rancho Cordova	Cupertino City	Rio Vista City	Visalia City
Sacramento City	Gilroy City	Suisun City City	Woodlake City
	Los Altos City	Vacaville City	
<b>San Benito County</b>	Los Altos Hills Town	Vallejo City	<b>Tuolumne County</b>
Hollister City	Los Gatos Town		Sonora City
San Juan Bautista City	Milpitas City	<b>Sonoma County</b>	
	Monte Sereno City	Cloverdale City	<b>Yolo County</b>
<b>San Francisco Co.</b>	Morgan Hill City	Cotati City	Davis City
San Francisco City	Mountain View City	Healdsburg City	West Sacramento City
	Palo Alto City	Petaluma City	Winters City
<b>San Joaquin Co.</b>	San Jose City	Rohnert Park City	Woodland City
Escalon City	Santa Clara City	Santa Rosa City	
Lathrop City	Saratoga City	Sebastopol City	<b>Yuba County</b>
Lodi City	Sunnyvale City	Sonoma City	Marysville City
Manteca City		Windsor Town	Wheatland City
Ripon City	<b>Santa Cruz Co.</b>		
Stockton City	Capitola City		
Tracy City	Santa Cruz City	<b>Stanislaus County</b>	
	Scotts Valley City	Ceres City	
<b>San Mateo County</b>	Watsonville City	Hughson City	
Atherton Town		Modesto City	
Belmont City	<b>Shasta County</b>	Newman City	
Brisbane City	Anderson City	Oakdale City	
Burlingame City	Redding City	Patterson City	
Colma Town	Shasta Lake City	Riverbank City	
Daly City City		Turlock City	
East Palo Alto City		Waterford City	

## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

The Northern California terrain is varied and rugged. Elevations range from sea level to over 14,000 feet (see Figure 4.2 below).

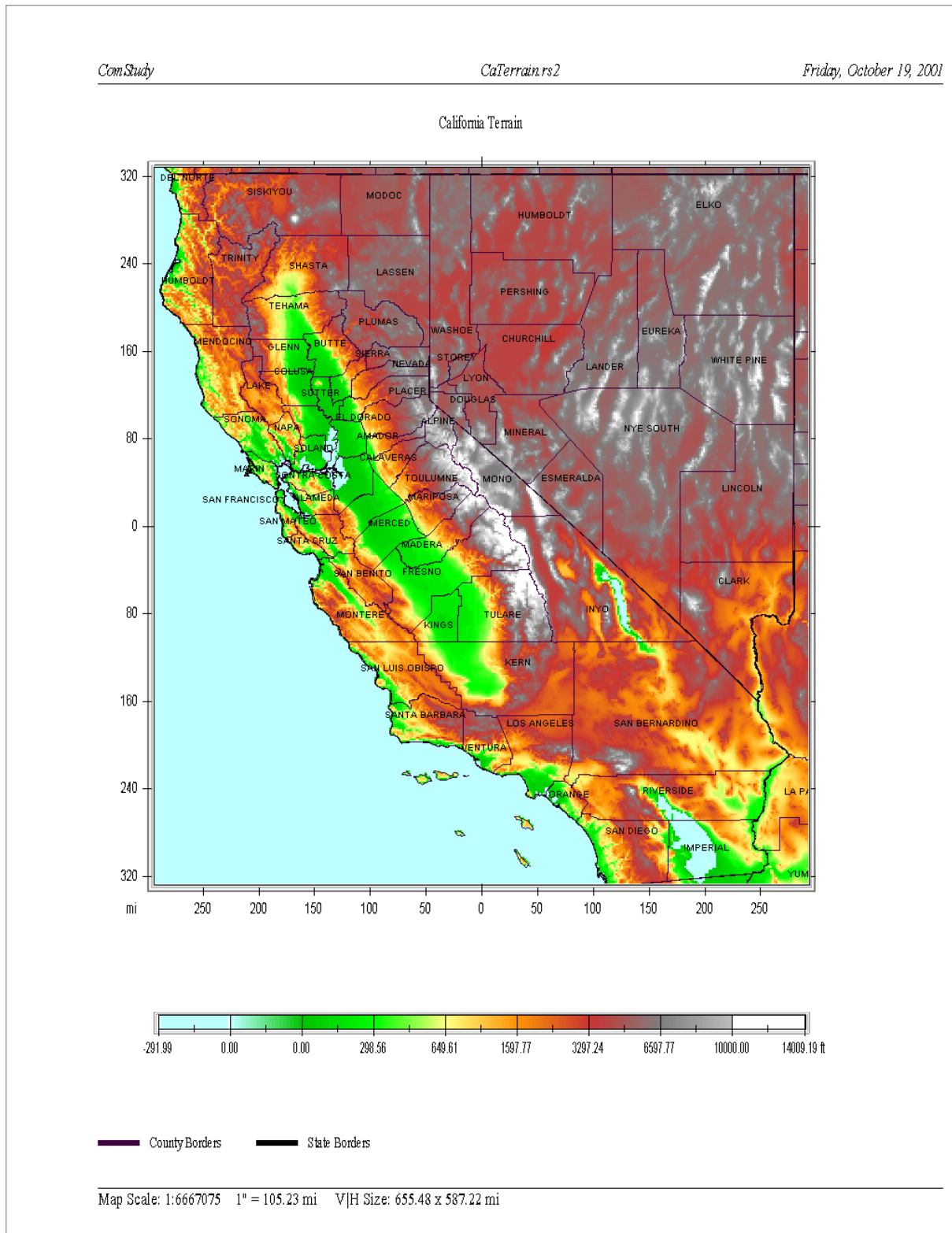
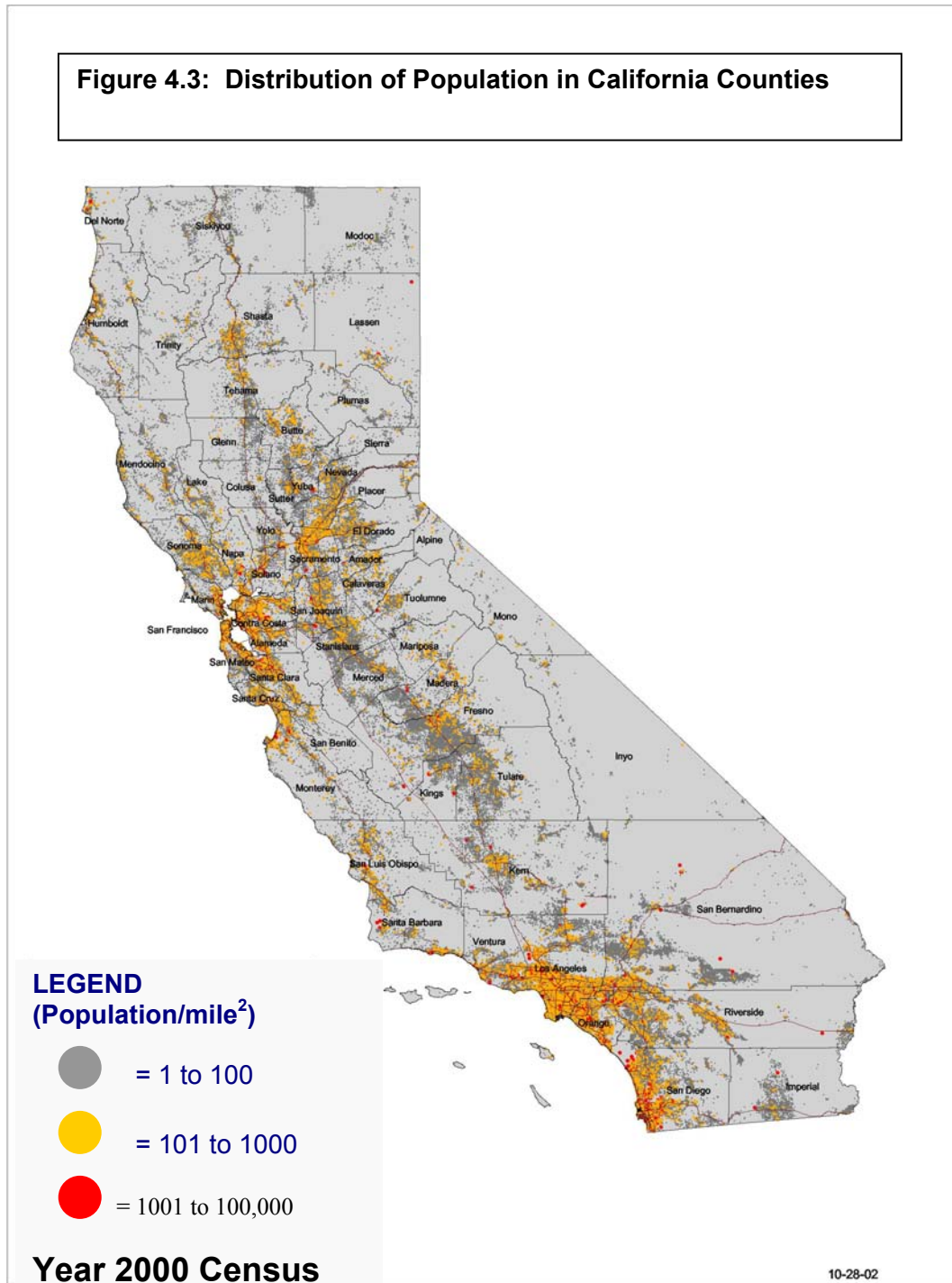


Figure 4.2: California Counties and Terrain (courtesy of RadioSoft)

## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

The majority of Northern California's population is distributed along California's west coast in proximity to Highway 101 and along a north-south line bisecting the center of California which coincides with Highway 99 South of Sacramento, and Interstate 5 North of Sacramento. Heavy concentrations exist in California's Bay, Silicon Valley, and Central Valley areas. Other areas of Northern California have small concentrated areas of population with vast areas of mountains and some deserts with very sparse population (see Figure 4.3 below).

**Figure 4.3: Distribution of Population in California Counties**



## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

Of California's population of ≈35.5 million, about 13.8 million reside within the boundaries of Region 6, and about 21.7 million within Region 5. Twelve of the forty-eight Region 6 counties contain ≈75% of its population (see Figure 4.3 and Table 4.1 below).

**Table 4.1: Twelve Counties in Region 6 Comprising ≈75% of the Population**

County	% of Region 6 Population (derived from year 2000 census data)
Santa Clara	12.7
Alameda	10.9
Sacramento	9.2
Contra Costa	7.2
Fresno	6.0
San Francisco	5.9
San Mateo	5.3
San Joaquin	4.3
Sonoma	3.5
Stanislaus	3.4
Monterey	3.0
Solano	3.0
<b>Total :</b>	<b>74.4</b>

The broadband systems deployments in Region 6 are envisioned as facilitating the high speed communications needs of:

- State of California through integrations with:
  - statewide networks accommodating multiple state agencies on common infrastructures
  - local and federal agencies that wish to participate on the statewide networks
- California Counties through integrations with:
  - countywide networks accommodating multiple County agencies on common infrastructures
  - State, City, and/or Federal agencies that wish to participate on the countywide networks
- California Cities through integrations with:
  - citywide networks which integrate multiple City agencies on common infrastructures
  - State, County, and/or Federal agencies that wish to participate on the citywide networks
- Other Eligible Public Safety/Public Service Entities

The committee anticipates an escalating public safety need for broadband data channels; that is, hardware and software technologies and applications necessitating

## **REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

channels bandwidths of 1 MHz, 5 MHz, 10 MHz, and even 20 MHz will proliferate – probably exponentially over time.

### **5 Notification**

#### **5.1 Convening 4.9 GHz RPC Meeting**

The first (convening) organizational meeting of the Region 6 Regional Planning Committee (RPC) accommodating the 4.9 GHz spectrum allocation was held on October 29, 2003. As Chair of the Region 6 – 700 MHz RPC, William De Camp convened the meeting. The meeting was advertised in the Northern Californian and electronically via an email message to all parties attending any prior Region 6 – 700 MHz RPC meeting. The FCC issued a Public Notice of the meeting (DA 03-2841). The California Governor's Office of Emergency Services (OES) sent representatives to the meeting (CA OES represents National Security and Emergency Preparedness at the state level and also coordinates with local emergency preparedness offices). A 4.9 GHz workgroup was established to prepare a plan in compliance with the FCC directive in Docket WT00-32. Two 4.9 GHz workgroup meetings were conducted before the second joint RPC meeting.

#### **5.2 Second Combined 700 MHz/4.9 GHz RPC Meeting**

The second meeting of the joint Region 6 – 700 MHz/4.9 GHz RPC was held on March 11, 2004. The FCC issued a Public notice for this meeting (DA 04-101). The meeting was again advertised in the Northern Californian and electronically via an email message to all parties attending any prior Region 6 – 700 MHz RPC meetings and any attending the first 4.9 GHz meeting. Two additional 4.9 GHz workgroup meetings were conducted before the third joint RPC meeting.

#### **5.3 Third Combined 700 MHz/4.9 GHz RPC Meeting**

The third joint Region 6 – 700 MHz/4.9 GHz meeting was held on July 15, 2004. The FCC issued a Public notice for this meeting (DA 04-1748). The meeting was again advertised in the Northern Californian and electronically via an email message to all parties attending any prior Region 6 – 700 MHz RPC meetings and all parties attending any prior Region 6 - 4.9 GHz RPC or workgroup meetings. Three additional 4.9 GHz workgroup meetings were conducted before the fourth joint RPC meeting.

#### **5.4 Fourth Combined 700 MHz/4.9 GHz RPC Meeting**

The fourth meeting of the joint Region 6 – 700 MHz/4.9 GHz RPC was held on April 21, 2005. The FCC issued a Public notice for this meeting (DA 05-659). The meeting was again advertised in the Northern Californian and electronically via an email message to all parties attending any prior Region 6 – 700 MHz RPC meetings and any attending the first 4.9 GHz meeting.

#### **5.5 A California Statewide Broadband Applications and Technologies Survey**

As the primary purpose of the planning effort is to maximize the flexibility of use of the 4.9 GHz spectrum while minimizing the potential for interference and/or conflicts, the Region 5 and Region 6 Committees developed a spectrum use survey which in Region 6 was electronically dispatched to each of the Fire Chiefs, Sheriffs, City and County Managers, Mayors, and CIO's for whom we had email addresses in Region 6's

## **REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

representative 48 counties. This SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND was also sent electronically via an email message to all parties attending any prior Region 6 – 700 MHz RPC meetings and all parties attending any prior Region 6 - 4.9 GHz RPC or workgroup meetings. The survey and its synopsized results were (and remain) posted at [www.4.9ghz.org](http://www.4.9ghz.org) under “Associations”, or alternatively at <http://publicsafetycommunications.org/Wi-Fi-4.php> . Note: The survey and its synopsized results are included as Exhibit C.1 and Exhibit C.2 respectively.

The following excerpts from the April 15<sup>th</sup> 2004 transmittal letter capture the survey's essence:

### ***5.5.1 Regional Planning and Spectrum***

*(What is it, how much is there, and who will administer it?)*

The 4.9 GHz band is intended to accommodate a variety of new broadband applications such as high-speed digital technologies and wireless local area networks (LAN) for incident scene management, dispatch operations and vehicular operations. This includes mobile operations, fixed hotspot use (similar to what is common with Wi-Fi), and temporary fixed links, as well as fixed point-to-point operations on a secondary basis. In addition, technology planned for this frequency band also includes the ability for the automatic formation of “Ad-Hoc” wireless LANs composed of the wireless data network elements of diverse agency units as they arrive on scene at an incident.

The FCC established a “jurisdictional” geographical licensing approach for operations in this band, whereby licensees will be licensed for the full 50 MHz and will be authorized to operate in those geographic areas over which they have jurisdiction, but they will be required to cooperate with others in the shared use of the spectrum. This band is also intended to foster interoperability by providing a regulatory framework in which traditional public safety entities can pursue strategic partnerships with both traditional public safety entities, such as the Federal Government, and non-traditional public safety entities, such as utilities and commercial entities, in support of their missions regarding homeland security and protection of life and property.

The 50 MHz spectrum within this frequency band consists of ten each 1 MHz wide channels and eight each 5 MHz channels, which can be aggregated if necessary to form wider channels up to a 20 MHz bandwidth maximum where higher data rates are desired. Maximum transmit power allowed in this band is 2 watts when a maximum bandwidth channel is required. Use of this spectrum in some areas is restricted based upon existing military training use and on radio astronomy applications. Refer to link [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-03-99A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-99A1.doc) for the FCC's Memorandum Opinion and Order and Third Report and Order of FCC Docket 00-32 detailing this 4.9 GHz public safety band.

Regional Planning Committees (RPCs) are allowed maximum flexibility to meet state and local needs, encourage innovative use of the spectrum, and accommodate new and as yet unanticipated developments in technology

## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

equipment. They are responsible for creating and managing regional plans. For this planning activity, your *local, regional, state and tribal public safety/public service agency (or authorized multi-agency collective) – hereinafter referred to as “organization”* – is either located in Region 5 (comprising the 10 California counties south of Monterey, Kings, Tulare, and Inyo Counties) or Region 6 (comprising the 48 California counties north of San Luis Obispo, Kern, and San Bernardino Counties. See <http://wireless.fcc.gov/publicsafety/700MHz/plans.html> for further information.

### **5.5.2 Eligibility**

Eligibility requirements for deploying/operating systems in the 4.9 GHz frequency band are as follows. Organizations meeting the eligibility criteria found in 47 Codes of Federal Regulations (CFR) §90.1203 and §90.523, both titled “*Eligibility*” (included as Attachment II for your convenience) may deploy/operate a wireless public safety communication system incorporating this imminently available 4.9 GHz public safety spectrum *subject to all the Federal Communications Commission rules/conditions associated with its usage*. Note: Internet addresses for a few websites providing multiple links to additional 4.9 GHz information have been provided in Attachment III for your convenience.

### **5.5.3 Solicitation of Interest**

Subsequent to perusing and acknowledging all related conditions, if your organization envisions the development/deployment of a system that will make use of this 4.9 GHz spectrum and has a committed interest in doing so, you are asked to respond to the questionnaire below.

### **5.5.4 Questionnaire**

The 4.9 GHz Region 5 and Region 6 Regional Planning Committee Spectrum Workgroups are each (both separately and collaboratively) working on their overall spectrum plans which will be adopted by their full committees, and ultimately the FCC. As part of this effort, these California Spectrum Workgroups require information from your organization. Please fill out the Questionnaire titled *Questionnaire Seeking Quantifying and Qualifying Information Regarding Each Organization’s Intended Use of the 4.9 GHz Spectrum* found in Attachment I. As this matter has significant, long-term implications, we urge all eligible organizations to fully evaluate their interest with staff and superiors, and to quantify and qualify their anticipated use of the subject spectrum.

We are seeking responses to the attached survey questions not later than June 1<sup>st</sup>, 2004. Whether your agency is in Region 5 or Region 6, please submit your response electronically, or by mail to the address below<sup>1</sup>:

William De Camp c/o CA DGS Telecommunications Division  
601 Sequoia Pacific Boulevard, MS# WH7  
Sacramento, CA 95814-0282

---

<sup>1</sup> For simplicity’s sake, William De Camp has been authorized to be the recipient for both Region 5 and 6 – 4.9 GHz survey responses.

## **REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

### **5.6 List of all Region 6 – 700 MHz/4.9 GHz RPC Meetings and Attendees**

A comprehensive list of Region 6 – 700 MHz/4.9 GHz RPC meetings and attendees through the date of this document is included as Exhibit B.,

## **6 REGIONAL PLAN ADMINISTRATION**

### **6.1 Operations of the Regional Plan Committee**

The Region 6 planning committee will use Robert's Rules of Order to conduct meetings. All decisions will be by clear consensus vote with each Public Safety Agency having one vote. The meetings are open to all persons and a public input time is given for anyone to express a viewpoint or to have input to the planning process.

Subcommittee workgroups may be formed as needed to work on specific issues. For the initial plan, two workgroups were formed – Resources/Technology/Applications Research and Operational Plan. Workgroups are intended to work on specific assignments and make recommendations to the full committee. Any changes to the regional plan must be voted on and approved by the full Regional Plan Committee. Workgroups are open to any person wanting to participate. The Chair of the Regional Planning Committee appoints the Chair for each workgroup.

A minimum of one meeting per year will be held including a full Regional Planning Committee meeting. This will be announced and advertised 60 days in advance by the Committee Chair. Beginning two years after Federal Communications Commission approval of this Regional Plan, the Chair shall call a meeting of the Committee to elect a Chair. Vice Chair and Secretary will also serve two-year terms. There is no limit to the number of terms that may be served. If the Chair is unable to serve a complete term the Vice Chair will serve as Chair until the next election meeting. If both the Chair and Vice Chair are unable to serve full terms, the Secretary will call a special meeting of the Committee to elect replacements. If for any reason the Secretary is unable to call a special meeting, the State or any County within the region may call for a special meeting, giving at least 60 days notice to elect replacements.

### **6.2 Part 90 Rules Governing Use of the 4940-4990 MHz band**

It is instructive to review and reflect upon **§ 90.1209** as we proceed.

#### ***§ 90.1209 Policies governing the use of the 4940-4990 MHz band.***

- a. Channels in this band are available on a shared basis only and will not be assigned for the exclusive use of any licensee.*
- b. All licensees shall cooperate in the selection and use of channels in order to reduce interference and make the most effective use of the authorized facilities. Licensees of stations suffering or causing harmful interference are expected to cooperate and resolve this problem by mutually satisfactory arrangements. If licensees are unable to do so, the Commission may impose restrictions including specifying the transmitter*

## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

*power, antenna height, or area or hours of operation of the stations concerned. Further, the Commission may prohibit the use of any 4.9 GHz channel under a system license at a given geographical location when, in the judgment of the Commission, its use in that location is not in the public interest.*

- c. Licensees will make every practical effort to protect radio astronomy operations as specified in Section 2.106, footnote US311.*
- d. There is no time limit for which base and temporary fixed stations authorized under a 4940-4990 MHz band license must be placed in operation. Fixed point-to-point stations which are licensed on a site-by-site basis must be placed in operation Prior to making application for new 4.9 GHz operations from the Federal Communications Commission, eligible entities are encouraged to contact the Regional Planning Committee in writing to advise the committee of intended operations in the 4.9 GHz band.*

### 6.3 Incentives for Cooperation

**§ 90.1207 Licensing** states that, “...a 4940-4990 MHz band license will be issued for the geographic area encompassing the legal jurisdiction of the licensee or, in case of a nongovernmental organization, the legal jurisdiction of the state or local governmental entity supporting the nongovernmental organization.” Before an eligible entity deploys a 4.9 GHz-based application, the entity is encouraged to coordinate with all known or knowable existing or aspirant 4.9 GHz band users operating or planning to operate within, or in close proximity to, the geographic area encompassing their legal jurisdiction. An interpretation of what constitutes close proximity is dependent on the technologies deployed; that is, air-to-ground and ground-based point-to-point applications may cause destructive interference further from a border than ground based personal area networks and localized incident area networks.

As an incentive towards supporting FCC’s **§ 90.1209** ruling above which states, “...All licensees shall cooperate in the selection and use of channels in order to reduce interference and make the most effective use of the authorized facilities, we believe it serves common public safety interests if licensed operations not on record with the Regional Planning Committee are rendered secondary to coordinated uses until the licensee contacts the Regional Planning Committee, in writing, and provides information about existing and/or intended operations in the 4.9 GHz spectrum. The selection and use of channels cannot be equitably achieved unless all existing and projected uses of the 4.9 GHz band are quantified and qualified for all to see.

For its part, the Region 6 Regional Planning Committee will employ the nationally available Computer Assisted Pre-coordination Resource And Database (CAPRAD) system <http://caprad.nlectc.du.edu/login/home> as a common resource accessible by authorized public safety entities and/or their affiliates and consultants to help provide and document regional coordination of 4940-4990 MHz use in the band to promote efficient operation. The CAPRAD system will facilitate coordinating 4.9 GHz spectrum resources in areas where multiple 4.9 GHz operations exist and/or are proposed. The Regional Planning Committee plans to act as a clearinghouse for public safety agencies – providing information and facilitating resource sharing where feasible.

## **REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

A list of existing licensees within close proximity of the proposed area of operation will be provided to the applicant upon request.

### **6.4 Adjacent Region Coordination**

Northern California's Region 6 shares borders with Southern California's Region 5, Arizona's Region 3, Nevada's Region 27, and Oregon's Region 35. The region has a small population density along all borders. The prior coordination of any envisioned applications of the 4.9 GHz band is also strongly encouraged within close proximity of any adjacent region's border. Aspirant users are urged to coordinate their intentions with all entities having a vested interest. This should, as a minimum, include all licensed 4.9 GHz entities.

### **6.5 Dispute Resolution**

In the event an agency disputes the implementation of this plan after FCC approval, the agency may voluntarily notify the Chair of the dispute in writing. The Chair will attempt to resolve the dispute on an informal basis. If a party to the dispute employs the Chair, then the Vice Chair will attempt resolution. In such cases, the Chair shall be deemed to have a conflict of interest and will be precluded from voting on such matters. If after 30 days the dispute is not resolved, the Chair (or Vice Chair) will appoint an ad-hoc Dispute Resolution Committee. The committee shall be comprised of a member from the State of California and members selected from representatives of the counties in the region. No member selected may be from an agency involved in the dispute. The Dispute Resolution committee will select a Chair to head the committee. The Regional Plan Chair (or Vice Chair) will represent the Region in presentations to the Dispute Resolution Committee. The Committee will hear input from the disputing agency, any affected agencies, and the Region Chair. The Committee will then meet in executive session to prepare a recommendation to resolve the dispute. Should this recommendation not be acceptable to the disputing agency or agencies, the dispute and all written documentation will be forwarded to the Federal Communications Commission for final resolution.

## **7 Interference Protection**

The Regional Planning Committee does not have the authority necessary to enforce interference protection in the 4.9 GHz band. The primary goal of the Region 6 planning effort is to maximize the flexibility of use of the 4.9 GHz spectrum while minimizing the potential for interference and/or conflicts. Region 6 hopes to mitigate the potential for interference through advocating and practicing "prior proper planning" to the extent practicable. As a first step in this process, in conjunction with Region 5 (Southern CA), we have evolved and adopted the set of guideline constructs iterated below. These constructs are developed in **Section 8 Region 6 – 4.9 GHz Planning Guidelines** below.

### **7.1 Region 6 – 4.9 GHz Guideline Constructs**

## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

- The guidelines will specify a frequency plan for point-to-point and air-to-ground operations.
- Agency shared systems will be encouraged.
- Primary use of the 4.9 GHz band will be for Incident Area Networks (IAN) operating under the ICS management system. Jurisdictional Area Networks (JAN) and Personal Area Networks (PAN) must not interfere with IAN operations.
- A priority structure will be established. Priority of use will emulate a modified version of the CA mutual aid priority list.
- Region 5 and Region 6 will use the CAPRAD system to maintain a database of fixed stations.
- Agencies are encouraged to purchase equipment designed to open standards that is interoperable.
- Air to Ground bandwidth per channel to be 2.5 MHz. Four channels will be allocated (10 MHz).
- Will develop a method to coordinate temporary point-to-point links.

### 8 Planning Guidelines

The FCC permits aggregated channel bandwidths of 5, 10, 15, or 20 MHz. Channel numbers 1-5 (yellow) and 14-18 (blue) are 1 MHz channels. Channel numbers 6-13 (green) are 5 MHz channels.

Center Frequency (MHz)	Channel Nos.
4940.5	1
4941.5	2
4942.5	3
4943.5	4
4944.5	5
4947.5	6
4952.5	7
4957.5	8
4962.5	9
4967.5	10
4972.5	11
4977.5	12
4982.5	13

## REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND

4985.5	14
4986.5	15
4987.5	16
4988.5	17
4989.5	18

### 8.1 Developed Region 6 – 4.9 GHz Planning Guidelines

#### 8.1.1 Shared Systems Strongly Advocated

The 4.9 GHz band is equally shared by all public safety agencies operating within their geographical boundaries. The spectrum allocation, while large in traditional terms, is a limited resource for the intended broadband data uses. This will require agencies operating in the same geographical area to cooperate in sharing the spectrum. As an example of a City, County and the State operating in the same geographical area, if multiple services (like police, fire and public works) from each agency decided to operate independent systems, the broadband channels would be quickly exhausted. Sharing will be important in this band. These guidelines are intended to facilitate that sharing.

#### 8.1.2 Incident Area Network Preference

Primary use of the band is for Incident Area Networks (IAN). Personal Area Network (PAN), Jurisdictional Area Network (JAN) and Extended Area Network (EAN) operations are secondary to IAN operations. Incident commanders will have authority to establish user priority and temporary rules of operation on all 4.9 GHz systems operating within the affected area of the incident command, but will make reasonable attempts to coordinate frequency usage with other existing users of the 4.9 GHz band that have quantified and qualified their systems pursuant to **6.3 Incentives for Cooperation** above.

#### 8.1.3 Open Standards

In order to share the spectrum and to foster interoperability, eligible agencies are encouraged to purchase equipment that is based on open standards and will operate between different vendors. Agencies are encouraged to develop multi-agency systems for joint and extended area networks. Agencies should always coordinate wide area networks with all agencies that might operate in the same geographical area.

#### 8.1.4 CAPRAD System Use

This Committee intends to use the CAPRAD system to document system information and facilitate its availability to all interested public safety agencies. This will enhance and enable agency sharing of the spectrum in this band.

#### 8.1.5 Point-to-Point Links

Use of point-to-point links is expected. Agencies are encouraged to use the one MHz channels (five each at the bottom and top of the band) for point-to-point links. Agencies

## **REGION 6 (Northern California) REGIONAL GUIDELINES AND RECOMMENDATIONS FOR THE 4940-4990 MHz BAND**

should avoid these channels for access point operations. Under FCC rules, temporary links have primary status. Permanent links are secondary. However, many areas of California are very rural and can benefit greatly from permanent links connecting remote radio sites. All agencies are encouraged to check the CAPRAD or FCC database before establishing a temporary link and therefore to protect permanent links to the greatest extent possible.

### ***8.1.6 Employing the California Standardized Emergency Management System***

All Incident Area Network (IAN) events utilizing the 4.9 GHz band should operate under the State's Standardized Emergency Management System. A communications officer position should be assigned to manage the 4.9 GHz band plan. The State's priority list should be used to resolve conflicts of use:

Priority 1      Disaster and extreme emergency operations for mutual aid and interagency communications

Priority 2      Emergency or urgent operations involving imminent danger to the safety of life or property

Priority 3      Special event control activities, generally of a pre-planned nature, and generally involving joint participation of two or more agencies

Priority 3a     Drills, tests and exercises

Priority 4      Single agency secondary communications

### ***8.1.7 Air-to-Ground One-Way Video Links***

Air-to-Ground one-way video links were identified by the workgroup members as a high priority use for this band. This need was identified in Region 5 for Los Angeles County agencies and by some Orange County agencies. Agencies in several Region 6 counties have also indicated a need for this capability. The joint California Region 5 and Region 6 Committees have worked with manufactures of the video equipment to develop transmitters that only occupy 2.5 MHz of bandwidth for acceptable video quality. The two California Committees are also planning some testing to determine the impact on the Radio Astronomy site at Goldstone. The testing will also quantify the interference impact to ground hotspots. The California Committees consider ground IAN operations to have priority, however airborne video surveillance is routinely a vital part of incident management. The two Committees recognize that air-to-ground video will require a waiver by the Commission. The two Committees will be participating in air-to-ground testing in Southern California. The Committees, using the test results, plan to supplement their respective guidelines to facilitate agencies pursuing waivers. At this time, the Committees recommend that four each 2.5 MHz channels be created from channels 6 and 7. All air-to-ground video links should operate on those channels.

**EXHIBITS**

## **REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS**

### **EXHIBIT A**

Region 6 – 700 MHz/4.9 GHz RPC Membership & Planning Affiliates

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

<b>Members &amp; Planning Affiliates</b>	<b>Email Address</b>	<b>Mailing Address</b>	<b>Phone #</b>
Akbari, Jason Associate Telecomm. Engineer Department of Transportation	<a href="mailto:jason_akbari@dot.ca.gov">jason_akbari@dot.ca.gov</a>	Department of Transportation Maintainance Program, MS 31 1120 N Street Sacramento, CA 94274-0001	(916) 654-6661
Alga, Gene Alameda County	<a href="mailto:galga@co.alameda.ca.us">galga@co.alameda.ca.us</a>	Alameda County Communications 2000 - 150th Avenue San Leandro, CA 94578	(510) 667-7791
Azevedo, Angela Analyst California Highway Patrol (CHP)	<a href="mailto:aazevedo@chp.ca.gov">aazevedo@chp.ca.gov</a>	California Highway Patrol 6899 Romanzo Way Elk Grove, CA 95758	(916) 375-2501
Baker, Chris Firefighter/Paramedic Roseville Fire Department	<a href="mailto:cbaker@roseville.ca.us">cbaker@roseville.ca.us</a>	Roseville Fire Department 401 Oak Street Roseville, CA 95678	(916) 847-8480
Barush, Roy Napa County	<a href="mailto:rbarush@co.napa.ca.us">rbarush@co.napa.ca.us</a>	Napa County Communications Dept 1220 4th St Napa, CA 94559	(707) 299-1301
Betts, Terry Communications Manager Contra Costa Sheriff's Office	<a href="mailto:tbett@so.co.contra-costa.ca.us">tbett@so.co.contra-costa.ca.us</a>	Contra Costa Sheriff's Office 1980 Muir Road Martinez, CA 94553	(925) 313-2453
Biancalana, Carol	<a href="mailto:cbiancal@emsa.ca.gov">cbiancal@emsa.ca.gov</a>	EMSA 1930 9th Street Sacramento, CA 95814	(916) 322-4336
Blau, Jeff Senior Account Manager Motorola	<a href="mailto:jeff.blau@motorola.com">jeff.blau@motorola.com</a>	Motorola 7794 Forsythia Court Pleasanton, CA 94588-4818	(925) 484-3002
Breen, Matthew Lead Public Safety Dispatcher Newark Police Department City of Newark	<a href="mailto:matthew.breen@newark.org">matthew.breen@newark.org</a>	City of Newark Newark Police Department 37101 Newark Boulevard Newark, CA 94560	(510) 790-7587
Bruinzeel, Jasper Director, Strategic Marketing	<a href="mailto:Jasper.bruinzeel@alvarion.com">Jasper.bruinzeel@alvarion.com</a>	Alvarion Inc. 5858 Edison Place	(760) 517-3149

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

<b>Members &amp; Planning Affiliates</b>	<b>Email Address</b>	<b>Mailing Address</b>	<b>Phone #</b>
<b>Alvarion Inc.</b>		<b>Carlsbad, CA 92008</b>	
Bryant, Doris Deputy Director, GSA Communications Alameda County	<a href="mailto:dbryant@co.alameda.ca.us">dbryant@co.alameda.ca.us</a>	Alameda County 1401 Lakeside Drive, Room 1002 Oakland, CA 94612	(510) 208-9789
Buchanan, David Network Services County of San Bernardino	<a href="mailto:dbuchanan@isd.sbcounty.org">dbuchanan@isd.sbcounty.org</a>	County of San Bernardino Network Services 670 E. Gilbert St. San Bernardino, CA 92415-0915	(909) 387-3337
Cassani, Tom Officer Walnut Creek Police Department	<a href="mailto:cassani@ci.walnut-creek.ca.us">cassani@ci.walnut-creek.ca.us</a>	Walnut Creek Police Department 1666 North Main Street Walnut Creek, CA 94596	(925) 256-3597
Chappelle, Ken Telecommunications Systems Manager Department of Corrections	<a href="mailto:Kenny.Chappelle@corr.ca.gov">Kenny.Chappelle@corr.ca.gov</a>	Department of Corrections P.O. Box 942883 Sacramento, CA 94283	(916) 445-6203
Coates, James Communications Engineer Santa Clara County	<a href="mailto:jim.coates@gsa.co.santa-clara.ca.us">jim.coates@gsa.co.santa-clara.ca.us</a>	Santa Clara County 2700 Carol Drive San Jose, CA 95125	(408) 299-2713
Conde, Kevin Sutter County Schools	<a href="mailto:kconde@marysville.ca.us">kconde@marysville.ca.us</a>	Sutter County Schools 970 Klamath Lane Yuba City, CA 95993	(530) 822-2940
Conley, Wayne Manager, Communications Department County of Alameda	<a href="mailto:wayne.conley@acgov.org">wayne.conley@acgov.org</a>	County of Alameda GSA, Communications Department 2000 150th Avenue San Leandro, CA 94578	(510) 667-7788
Cook, Mary Communications Supervisor EMSA	<a href="mailto:mcook@emsa.ca.gov">mcook@emsa.ca.gov</a>	EMSA 1930 9th Street Sacramento, CA 958114	(916) 322-4336
<b>Crawford, Criss</b> <b>Special Projects Manager</b> <b>American Medical Response</b>	<a href="mailto:criss_crawford@amr-ems.com">criss_crawford@amr-ems.com</a>	<b>212 Campus Way</b> <b>Modesto, CA 95352</b>	<b>(209) 567-4000</b>
Cummings, Corey Department of Corrections	<a href="mailto:corey.cummings@corr.ca.gov">corey.cummings@corr.ca.gov</a>	Department of Corrections 501 J Street Sacramento, CA 95814	(916) 324-2691

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

<b>Members &amp; Planning Affiliates</b>	<b>Email Address</b>	<b>Mailing Address</b>	<b>Phone #</b>
De Camp, Bill Senior Telecommunications Engineer Strategic Planning Section CA Department of General Services	<a href="mailto:william.decamp@dgs.ca.gov">william.decamp@dgs.ca.gov</a>	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd., MS-WH7 Sacramento, CA 95814	(916) 657-9205
deCastro, Glenn City and County of San Francisco	<a href="mailto:glenn.decastro@sfgov.org">glenn.decastro@sfgov.org</a>	City and County of San Francisco Emergency Communications Department 1011 Turk Street San Francisco, CA 94102	(415) 558-3816
Devine, Steve Missouri State Highway Patrol	<a href="mailto:Steve.devine@mshp.dps.mo.gov">Steve.devine@mshp.dps.mo.gov</a>	Missouri State Highway Patrol General Headquarters Communications Division P.O. Box 568 Jefferson City, MO 65101	(573) 526-6105
Doble, Mike Municipal Networks & Public Safety Marketing Manager Proxim Corporation	<a href="mailto:mdoble@comcast.net">mdoble@comcast.net</a>	935 Stewart Drive Sunnyvale, CA 94085 USA	408-542-3358
Dupre, Steve San Mateo County	<a href="mailto:sdupre@co.sanmateo.ca.us">sdupre@co.sanmateo.ca.us</a>	San Mateo County Radio Services 501 Winslow Street Redwood City, CA 94063	(650) 363-4443
Easterbrook, Jon Captain, Communications UCSF Police Department	<a href="mailto:jeasterbrook@ucsf.edu">jeasterbrook@ucsf.edu</a>	University of California, San Francisco Police Department 1855 Folsom Street San Francisco, CA 94143-0238	(415) 476-8904
Eierman, Dave Motorola, CE, CGISS, Spectrum Strategy	<a href="mailto:david.eierman@motorola.com">david.eierman@motorola.com</a>	7230 Parkway Drive Hanover, MD 21076	(410) 712-6242
Eldridge, Kent Communications Manager County of Sacramento	<a href="mailto:eldridgek@saccounty.net">eldridgek@saccounty.net</a>	County of Sacramento Office of Communications and Information Technology, Radio and Electronic Services 3700 Branch Center Road, Suite D Sacramento, CA 95827	(916) 875-6438

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

<b>Members &amp; Planning Affiliates</b>	<b>Email Address</b>	<b>Mailing Address</b>	<b>Phone #</b>
Elwell, Dennis Supervising Engineer Department of General Services	<a href="mailto:dennis.elwell@dgs.ca.gov">dennis.elwell@dgs.ca.gov</a>	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd., MS-23 Sacramento, CA 95814	(916) 657-9459
Engstrom, Harry Electronics Division Alameda County	<a href="mailto:hengstro@co.alameda.ca.us">hengstro@co.alameda.ca.us</a>	Alameda County General Services Administration Electronics Division 2000 150 <sup>th</sup> Avenue San Leandro, CA 94578-1369	(510) 667-7788
Finster, Brent Contra Costa County	<a href="mailto:bfinst@cccfd.org">bfinst@cccfd.org</a>	Contra Costa County Fire Department 2010 Geary Road Pleasant Hill, CA 94523-4694	(925) 930-5550
Forrest, Greg MACRO Corporation	<a href="mailto:gforrest@macro.com">gforrest@macro.com</a>	1777 Oakland Boulevard, Suite 101 Walnut Creek, CA 94596	(925) 210-1500 Ext: 222
Funk, Dave Deputy Manager, Communications Technology Outreach NLECTC	<a href="mailto:dafunk@du.edu">dafunk@du.edu</a>	2050 E. Iliff Avenue - BW Denver, CO 80208	(303) 871-2439
Gibbons, Patricia Chief Telecommunications Technician City of San Jose	<a href="mailto:patricia.gibbons@ci.sj.ca.us">patricia.gibbons@ci.sj.ca.us</a>	City of San Jose Information Technology Department Communications Management Division 855 North San Pedro Street San Jose, CA 95110	(408) 277-4082
Goode, Charles UCSF Police Department	<a href="mailto:cgoode@police.ucsf.edu">cgoode@police.ucsf.edu</a>	University of California, San Francisco Police Department 1855 Folsom Street San Francisco, CA 94143-0238	(415) 476-0620
Graillat, Chris Standards and Guidelines Analyst EMSA	<a href="mailto:cgraillat@emsa.ca.gov">cgraillat@emsa.ca.gov</a>	EMSA 1930 9th Street Sacramento, CA 95814	(916) 322-4336
Grant, Shelley County of Marin	<a href="mailto:sgrant@marin.org">sgrant@marin.org</a>	County of Marin PO Box 4055 San Rafael, CA 94913-4186	(415) 499-7313

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

<b>Members &amp; Planning Affiliates</b>	<b>Email Address</b>	<b>Mailing Address</b>	<b>Phone #</b>
Graves, Tim Associate Telecommunications Engineer Department of General Services	<a href="mailto:tim.graves@dgs.ca.gov">tim.graves@dgs.ca.gov</a>	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd., MS-19 Sacramento, CA 95814	(916) 657-9260
Grootveld, Gary Chief, Office of Public Safety Radio Services Department of General Services	<a href="mailto:gary.grootveld@dgs.ca.gov">gary.grootveld@dgs.ca.gov</a>	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd., MS-23 Sacramento, CA 95814	(916) 657-9381
Hagar, Randy Telecommunications Technician Sacramento Metropolitan Fire District	<a href="mailto:randall.Hagar@acgov.org">randall.Hagar@acgov.org</a>	Sacramento Metropolitan Fire District 2101 Hurley Way Sacramento, CA 95825-3208	(510) 208-9789
Haggard, Jeff Sacramento Metropolitan Fire District, Telecommunications Technician	<a href="mailto:haggard.jeff@srfd.ca.gov">haggard.jeff@srfd.ca.gov</a>	2101 Hurley Way Sacramento, CA 95825-3208	(916) 566-4372
Hamilton, Larry I.T. Manager Office of Communications and I.T. Sacramento County	<a href="mailto:hamiltonl@saccounty.net">hamiltonl@saccounty.net</a>	Sacramento County Office of Communications and I.T. 799 G Street Sacramento, CA 95814	(916) 874-2489
Hanes, Pat Systems Administrator and Technical Coordinator Redding Police Department	<a href="mailto:phanes@reddingpolice.org">phanes@reddingpolice.org</a>	City of Redding Police Department 1313 California Street Redding, CA 96001	(530) 225 4266
Harman, Ron Motorola, Inc.	<a href="mailto:ron.harman@motorola.com">ron.harman@motorola.com</a>	Motorola, Inc. 1150 Kifer Road Sunnyvale, CA 94086	
Hedgpeth, Roger EMSA	<a href="mailto:rhedgpeth@emsa.ca.gov">rhedgpeth@emsa.ca.gov</a>	EMSA 1930 9th Street Sacramento, CA 95814	(916) 322-4336
Herold, Tom BART	<a href="mailto:therold@bart.gov">therold@bart.gov</a>	BART 300 Lakeside Drive, 15 <sup>th</sup> Floor Oakland, CA 94404	(510) 464-6535
Hlivak, Robert J. Radio Engineer	<a href="mailto:robert.j.hlivak@hawaii.gov">robert.j.hlivak@hawaii.gov</a>	State of Hawaii ICS Division	(808) 586 1930 Ext. 013

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

<b>Members &amp; Planning Affiliates</b>	<b>Email Address</b>	<b>Mailing Address</b>	<b>Phone #</b>
State of Hawaii		1177 Alakea St., Room 201 Honolulu, HI 96813	
Hojeij, Wade Assoc. Telecommunications Engineer Department of General Services	<a href="mailto:wade.hojeij@dgs.ca.gov">wade.hojeij@dgs.ca.gov</a>	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd. MS-WH7 Sacramento, CA 95814	(916) 657-9213
Isaac, John V.P. Sales/Project Manager Clare Computer Solutions	<a href="mailto:jisaac@clarecomputer.com">jisaac@clarecomputer.com</a>	Clare Computer Solutions 2580 San Ramon Valley Blvd., #B107 San Ramon, CA 94583	(925) 277-0690
Johl, Balbir Senior Engineer Department of General Services	<a href="mailto:balbir.johl@dgs.ca.gov">balbir.johl@dgs.ca.gov</a>	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd. MS-16 Sacramento, CA 95814	(916) 657-6131
Kelleher, Dan Motorola	<a href="mailto:C12073@motorola.com">C12073@motorola.com</a>	Motorola 8 East Carol Avenue Burlingame, CA 94010-5233	(408) 991-7474
Kerr, Doug	<a href="mailto:doug@lpnwireless.com">doug@lpnwireless.com</a>	561 Sky Ranch Petaluma, CA 94954	(707) 781-9210
Kiener, Alex Communications Manager County of Santa Cruz	<a href="mailto:alex.keener@co.santa-cruz.ca.us">alex.keener@co.santa-cruz.ca.us</a>	County of Santa Cruz Technical Communications 701 Ocean Street, Room 330 Santa Cruz, CA 95060	(831) 454-2025
Klose, Heinz Communications Manager Placer County	<a href="mailto:hklose@placer.ca.gov">hklose@placer.ca.gov</a>	Placer County 2809 Second Street Auburn, CA 95603	(530) 889-7740
Knight, Curt Chair, Region 3 - 700 MHz RPC Arizona DPS	<a href="mailto:cknight@dps.state.az.us">cknight@dps.state.az.us</a>	Arizona DPS P.O. Box 6638 Mail Drop 2800 Phoenix, AZ 85005-6638	(602) 223-2257
Kostas, Mike Lieutenant Marysville Police Department	<a href="mailto:mkostas@marysville.ca.us">mkostas@marysville.ca.us</a>	Marysville Police Department 316 6th Street Marysville, CA 95901	(530) 749-3912
Krout, Terry Marin County Sheriff's Office of Emergency	<a href="mailto:tkrout@co.marin.ca.us">tkrout@co.marin.ca.us</a>	Marin County OES 3501 Civic Center Drive Room #266	(415) 499-6584

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

<b>Members &amp; Planning Affiliates</b>	<b>Email Address</b>	<b>Mailing Address</b>	<b>Phone #</b>
Services		San Rafael, CA 94903	
Laye, Tom Communications (Police) Technical Services Manager City of Santa Clara	<a href="mailto:tlaye@ci.santa-clara.ca.us">tlaye@ci.santa-clara.ca.us</a>	City of Santa Clara 1715 Martin Avenue Santa Clara, CA 95050	(408) 615-5591
Leatherman, Rick Regional Account Executive, Government Markets, SW DataRadio	<a href="mailto:rleatherman@dataradio.com">rleatherman@dataradio.com</a>	DataRadio 474 E. Elgin Street Gilbert, AZ 85296	(480) 361-6125
Li, Sheung Product Line Manager Atheros Communications Inc.	<a href="mailto:sheung@atheros.com">sheung@atheros.com</a>	529 Almanor Avenue Sunnyvale, CA 94085-3512	(408) 773-5295
Lin, Vincent Senior Engineer Department of General Services	<a href="mailto:vincent.lin@dgs.ca.gov">vincent.lin@dgs.ca.gov</a>	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd., MS-WH7 Sacramento, CA 95814	(916) 657-9118
Lindly, Tom City of Santa Clara	<a href="mailto:tlindly@ci.santa-clara.ca.us">tlindly@ci.santa-clara.ca.us</a>	1990 Walsh Avenue Santa Clara, CA 95050-2506	(408) 615-5593
Linfor, Jon Telecommunications Technician II	<a href="mailto:jlinfor@sacsheriff.com">jlinfor@sacsheriff.com</a>	Sacramento County Sheriff's Office 711 G Street Sacramento, CA 95814	(916) 874-6734
Longnecker, Jim DacoM	<a href="mailto:jim.longnecker@dacom-co.com">jim.longnecker@dacom-co.com</a>	DacoM 6119-A 27th Street Sacramento, CA 95822	(916) 422-0665
Lowry, George Assistant Chief of Telecommunications, Coast Region Governor's Office of Emergency Services	<a href="mailto:george.lowry@oes.ca.gov">george.lowry@oes.ca.gov</a>	Office of Emergency Services 3650 Schriever Avenue Mather, CA 95655	(916) 845-8608
Marin, Glenn Communications Consultant University of California, San Francisco	<a href="mailto:gmarin@ixpcorp.com">gmarin@ixpcorp.com</a>	iXP Corporation Los Angeles, CA ixpcorp.com	(562) 696-1286
Martzen, Ken	<a href="mailto:kmartzen@emsa.ca.gov">kmartzen@emsa.ca.gov</a>	EMSA	(916) 255-4162

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

<b>Members &amp; Planning Affiliates</b>	<b>Email Address</b>	<b>Mailing Address</b>	<b>Phone #</b>
Associate Health Program Advisor EMSA		1930 9 <sup>th</sup> Street Sacramento, CA 95814	
McHatton, Jake Chief of Telecommunications Governor's Office of Emergency Services	<a href="mailto:jakemchatton@oes.ca.gov">jakemchatton@oes.ca.gov</a>	Office of Emergency Services 3650 Schriever Avenue Mather, CA 95655	(916) 845-8602
McRae, Mike SMUD	<a href="mailto:mmcrae@smud.org">mmcrae@smud.org</a>	SMUD Telecommunications 6201 S Street MS# C102 Sacramento, CA 95817	(916) 732 6963 Fax: (916) 732-6846
Meditz, Mike Network Engineer Alameda County	<a href="mailto:mike.meditz@acgov.org">mike.meditz@acgov.org</a>	Alameda County ITD Network Services 1221 Oak Street Room 17B Oakland, CA 94612	(510) 272-3636
Melton, Roger Associate Telecommunications Engineer Department of General Services	<a href="mailto:roger.melton@dgs.ca.gov">roger.melton@dgs.ca.gov</a>	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd., MS-WH7 Sacramento, CA 95814	(916) 657-9132
Middlebrooks, Andy Director Spectrum Strategy & Business Development DataRadio	<a href="mailto:amiddlebrooks@dataradio.com">amiddlebrooks@dataradio.com</a>	DataRadio – Atlanta 6160 Peachtree Dunwoody Road, Suite C-200 Atlanta, GA 30328	(770) 392-0002 Ext. 250
Moore, Randy Staff Captain Alameda County Fire Department	<a href="mailto:rmoore@acgov.org">rmoore@acgov.org</a>	Alameda County Fire Department 835 East 14 <sup>th</sup> Street #200 San Leandro, CA 94577	(510) 618-3467
Morris, Laurel Communications Manager Technical Services Division Palo Alto Police Department	<a href="mailto:laurel.morris@cityofpaloalto.org">laurel.morris@cityofpaloalto.org</a>	Palo Alto Police Department Technical Services Division 275 Forest Avenue Palo Alto, CA 94301	(650) 329-2661
Nash, Glen Senior Engineer Department of General Services	<a href="mailto:glen.nash@dgs.ca.gov">glen.nash@dgs.ca.gov</a>	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd., MS-19 Sacramento, CA 95814	(916) 657-9454

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

<b>Members &amp; Planning Affiliates</b>	<b>Email Address</b>	<b>Mailing Address</b>	<b>Phone #</b>
Nydam, Mike President and CEO AIRAYA	<a href="mailto:mike@airaya.com">mike@airaya.com</a>	AIRAYA 637 Adair Court Morgan Hill, CA 95037	(408) 776-9583
Ockers, Ben Sales Manager Tera Beam Wireless	<a href="mailto:bockers@terabeam.com">bockers@terabeam.com</a>	Tera Beam Wireless 990 Almanor Avenue Sunnyvale, CA 94085	(408) 617-8150
Olson, Albert Sergeant Redding Police Department	<a href="mailto:aolson@reddingpolice.org">aolson@reddingpolice.org</a>	Redding Police Department 1313 California Street Redding, CA 96001	(530) 225-4327
Osborn, Michael Information Technology Manager City of Stockton	<a href="mailto:michael.Osborn@ci.stockton.ca.us">michael.Osborn@ci.stockton.ca.us</a>	City of Stockton 425 N. El Dorado Street Stockton, CA 95202	(209) 937-8120
Overacker, Steve Telecommunications Manager Department of Information Technology Contra Costa County	<a href="mailto:sover@doit.co.contra-costa.ca.us">sover@doit.co.contra-costa.ca.us</a>	Contra Cost County Department of Information Technology 30 Douglas Drive Martinez, CA 94553-4068	(925) 957-7701
Pabst, Bill VP, Engineering Chief Technologist AIRAYA	<a href="mailto:bpabst@airaya.com">bpabst@airaya.com</a>	AIRAYA 637 Adair Court Morgan Hill, CA 95037	(408) 776-9583
Phelps, Floyd State Accounts TallyCom	<a href="mailto:fphelps@tallycom.com">fphelps@tallycom.com</a>	TallyCom 23125 Bernhardt Street Hayward, CA 94545	(800) 223-4949 Ext. 1311
Powell, John Senior Consulting Engineer U.S. Dept. of Justice and Homeland Security	<a href="mailto:jpowell@uslink.berkeley.edu">jpowell@uslink.berkeley.edu</a>	U.S. Department of Justice and Homeland Security 790 Washington Street Suite 909 Denver, CO 80203	(510) 410-2858
Rinehart, Bette Regulatory Affairs Manager Motorola, Inc.	<a href="mailto:C18923@email.mot.com">C18923@email.mot.com</a>	Motorola, Inc. 28 Twin Lakes Drive Gettysburg, PA 17325	(717) 334-0654
Root, Don Deputy Chief, Telecommunications Governor's Office of Emergency Services	<a href="mailto:don_root@oes.ca.gov">don_root@oes.ca.gov</a>	Office of Emergency Services P.O. Box 419047 Rancho Cordova, CA 95741-9047	(916) 845-8601
Rowland, Gregg Rowland, Anne	<a href="mailto:gregg@packethop.com">gregg@packethop.com</a>	Packet Hop, Inc. 1301 Shoreway Road, Suite 200	(650) 292-5006

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

<b>Members &amp; Planning Affiliates</b>	<b>Email Address</b>	<b>Mailing Address</b>	<b>Phone #</b>
Vice-President of PacketHop, Inc		Belmont, CA 94002	
Sastry, Ambatipudi R. Chief Technology Officer Packet Hop, Inc.	<a href="mailto:asastry@packethop.com">asastry@packethop.com</a>	Packet Hop, Inc. 1301 Shoreway Road, Suite 200 Belmont, CA 94002	(650) 292-5003
Schmidt, John Engineering Manager, Northern Districts Department of Transportation	<a href="mailto:john_schmidt@dot.ca.gov">john_schmidt@dot.ca.gov</a>	Department of Transportation Maintenance Program Office of Radio Communications, MS 77 1120 N Street Sacramento, CA 95814	(916) 654-6709
Scott, Eric Associate Telecommunications Engineer Department of General Services	<a href="mailto:eric.scott@dgs.ca.gov">eric.scott@dgs.ca.gov</a>	Department of General Services Telecommunications Division 601 Sequoia Pacific Blvd., MS-WH7 Sacramento, CA 95814	(916) 657-9184
Shearn, Donna Lieutenant Newark Police Department	<a href="mailto:donna.shearn@newark.org">donna.shearn@newark.org</a>	Newark Police Department 37101 Newark Blvd. Newark CA 94560	(510) 794-2379
Smith, Steve Northern California Area Sales Manager M/A-COM Wireless	<a href="mailto:steven.smith@tycoelectronics.com">steven.smith@tycoelectronics.com</a>		(206) 331-2357
Staylon, Wayne Technical Deputy Director Stanislaus County	<a href="mailto:staylonw@mail.co.stanislaus.ca.us">staylonw@mail.co.stanislaus.ca.us</a>	Stanislaus County 3705 Oakdale Road Modesto, CA 95357	(209) 552-3900
Stuber, Ken Telecommunications. Engineer I. T. Department City of Sacramento	<a href="mailto:kstuber@cityofsacramento.org">kstuber@cityofsacramento.org</a>	City of Sacramento, I.T. Department Technical Support Services Division 904 11 <sup>th</sup> Street Sacramento, CA 95814	(916) 808-8511
Svoboda, Krasna Principal Clarian Telecommunications Consulting LLC	<a href="mailto:k.svoboda@mac.com">k.svoboda@mac.com</a>	2911 State Street, Suite B Carlsbad, CA 92008	(760) 720-1848
Thomson, Preston Frequency Advisor NAPCO	<a href="mailto:thomsonp@apco911.org">thomsonp@apco911.org</a>	APCO 6868 Country Court Granite Bay, CA 95746	(916) 797-5395
Tognetti, Dan	<a href="mailto:dtognetti@cityofnapa.org">dtognetti@cityofnapa.org</a>	City of Napa	(707) 257-9527

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

<b>Members &amp; Planning Affiliates</b>	<b>Email Address</b>	<b>Mailing Address</b>	<b>Phone #</b>
Telecommunications Specialist City of Napa		Telecommunications Division P.O. Box 660 770 Jackson Street Napa, CA 94559	
Tolman, Tom Director, NPSTC Support Office; Manager, Communications Technology	<a href="mailto:tolman@du.edu">tolman@du.edu</a>	2050 East Iliff Avenue Denver, CO 80208	(303) 871-4190
Tong, Al Communications Planner City and County of San Francisco	<a href="mailto:al.tong@sfgov.org">al.tong@sfgov.org</a>	City and County of San Francisco Office of Emergency Services & Homeland Security 1011 Turk Street San Francisco, CA 94102	(415) 558-3810
Vallee, Rich Telecommunications Engineer Department of Transportation	<a href="mailto:rich.vallee@dot.ca.gov">rich.vallee@dot.ca.gov</a>	Department of Transportation Information Technology 1823 14 <sup>th</sup> Street, MS-80 Sacramento, CA 95814	(916) 445-0478
Vell, Jim Captain Sacramento Metropolitan Fire Department	<a href="mailto:vell.jim@smfd.ca.gov">vell.jim@smfd.ca.gov</a>	Sacramento City 2101 Hurley Way Sacramento, CA 95825-3208	(916) 566-4373
Wilson-Sroii, Terry Administrative Supervisor, Communications Bureau, Technical Services Division Sacramento County Sheriff's Department	<a href="mailto:twilson@sacsheriff.com">twilson@sacsheriff.com</a>	711 G. Street Sacramento, CA 95814	(916) 874-8323
Wright, Robert Regional Manager, Telecommunications AMR	<a href="mailto:robert_wright@amr-ems.com">robert_wright@amr-ems.com</a>	AMR NPR Communications Division 801 10th Street, 6th Floor Modesto, CA 95354	(209) 238-4855
Yuson, Tony Project Manager County of Sacramento	<a href="mailto:tyuson@co.sanmateo.ca.us">tyuson@co.sanmateo.ca.us</a>	County of San Mateo ISD 455 County Center 3rd Floor Redwood City, CA 94063	(916) 599 1065

## **REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS**

### **EXHIBIT B**

Comprehensive List Of Region 6 – 700 MHz/4.9 GHz Meetings And Attendees



## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])															
			5/16/02 – First (1 <sup>st</sup> ) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 <sup>nd</sup> ) RPC	4/14/03 – Third (3 <sup>rd</sup> ) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Alga, Gene	<a href="mailto:galga@co.alameda.ca.us">galga@co.alameda.ca.us</a>	(510) 667-7791						X	X	X								
Allison, Ron	<a href="mailto:allison@sna.com">allison@sna.com</a>	(916) 875-3153	X	X														
Azevedo, Angela	<a href="mailto:aazevedo@chp.ca.gov">aazevedo@chp.ca.gov</a>	(916) 375-2501	X	X	X				X		X							
Baker, Chris	<a href="mailto:cbaker@roseville.ca.us">cbaker@roseville.ca.us</a>	(916) 847-8480									X	X	X	X		X	X	
Betts, Terry	<a href="mailto:tbett@so.co.contra-costa.ca.us">tbett@so.co.contra-costa.ca.us</a>	(925) 313-2453	X		X		X				X	X						
Biancalana, Carol	<a href="mailto:cbiancal@emsa.ca.gov">cbiancal@emsa.ca.gov</a>	(916) 322-4336	X	X	X		X											
Blau, Jeff	<a href="mailto:jeff.blau@motorola.com">jeff.blau@motorola.com</a>	(925) 484-3002					X											
Matt Brown	<a href="mailto:mbrown@tallycom.com">mbrown@tallycom.com</a>	(510) 783-2111									X							
Bryant, Doris	<a href="mailto:dbryant@co.alameda.ca.us">dbryant@co.alameda.ca.us</a>	(510) 208-9789				X	X											

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])															
			5/16/02 – First (1 <sup>st</sup> ) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 <sup>nd</sup> ) RPC	4/14/03 – Third (3 <sup>rd</sup> ) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Buchanan, David	<a href="mailto:dbuchanan@isd.sbcounty.org">dbuchanan@isd.sbcounty.org</a>	(909) 387-3337									X	X						
Byard, Chuck	<a href="mailto:Byard@ci.redding.ca.us">Byard@ci.redding.ca.us</a>	(530) 949 1560						X	X	X								
Cassani, Tom	<a href="mailto:cassani@ci.walnut-creek.ca.us">cassani@ci.walnut-creek.ca.us</a>	(925) 256-3597								X	X							
Coates, James	<a href="mailto:jim.coates@gsa.co.santa-clara.ca.us">jim.coates@gsa.co.santa-clara.ca.us</a>	(408) 299-2713																
Conde, Kevin	<a href="mailto:kconde@marysville.ca.us">kconde@marysville.ca.us</a>	(530) 822-2940											X				X	
Conley, Wayne	<a href="mailto:wayne.conley@acgov.org">wayne.conley@acgov.org</a>	(510) 667-7788									X						X	
Crawford, Criss	<a href="mailto:criss_crawford@amr-ems.com">criss_crawford@amr-ems.com</a>	(209) 567-4027						X										
Robert Cross	<a href="mailto:cross2225@comcast.net">cross2225@comcast.net</a>	(530) 671-0228															X	
Cummings, Corey	<a href="mailto:corey.cummings@corr.ca.gov">corey.cummings@corr.ca.gov</a>	(916) 324-2691					X				X	X						
De Camp, Bill	<a href="mailto:william.decamp@dgs.ca.gov">william.decamp@dgs.ca.gov</a>	(916) 657-9205	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])															
			5/16/02 – First (1 <sup>st</sup> ) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 <sup>nd</sup> ) RPC	4/14/03 – Third (3 <sup>rd</sup> ) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Divine, Steve	<a href="mailto:devins@mshp.state.mo.us">devins@mshp.state.mo.us</a>	(573) 526-6105									X	X						
Doble, Mike	<a href="mailto:mdoble@comcast.net">mdoble@comcast.net</a>	(925) 735-9848									X	X	X	X	X	X	X	
Eierman, Dave	<a href="mailto:david.eierman@motorola.com">david.eierman@motorola.com</a>	(410) 712-6242									X	X						
Eldridge, Kent	<a href="mailto:eldridgek@saccounty.net">eldridgek@saccounty.net</a>	(916) 875-6438	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
Elwell, Dennis	<a href="mailto:dennis.elwell@dgs.ca.gov">dennis.elwell@dgs.ca.gov</a>	(916) 657-9459										X						
Engstrom, Harry	<a href="mailto:hengstro@co.alameda.ca.us">hengstro@co.alameda.ca.us</a>	(510) 667-7788			X	X	X											
Finster, Brent	<a href="mailto:bfins@cccfd.org">bfins@cccfd.org</a>	(925) 930-5550	X	X	X		X		X		X	X						
Fox, John	<a href="mailto:jfox@police.uscf.edu">jfox@police.uscf.edu</a>	(415) 476-9240														X		
Funk, Dave	<a href="mailto:dafunk@du.edu">dafunk@du.edu</a>	(303) 871-2439									X	X						

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])															
			5/16/02 – First (1 <sup>st</sup> ) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 <sup>nd</sup> ) RPC	4/14/03 – Third (3 <sup>rd</sup> ) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Gibbons, Patricia	<a href="mailto:patricia.gibbons@ci.sj.ca.us">patricia.gibbons@ci.sj.ca.us</a>	(408) 277-4082	X	X	X		X	X	X	X								
Goode, Charles	<a href="mailto:cgoode@police.ucsf.edu">cgoode@police.ucsf.edu</a>	(415) 476-0620															X	
Graillat, Chris	<a href="mailto:cgraillat@emsa.ca.gov">cgraillat@emsa.ca.gov</a>	(916) 322-4336						X	X	X	X		X	X	X		X	X
Shelley Grant	<a href="mailto:sgrant@marin.org">sgrant@marin.org</a>	(415) 499-7313									X	X						
Grootveld, Gary	<a href="mailto:gary.grootveld@dgs.ca.gov">gary.grootveld@dgs.ca.gov</a>	(916) 657-9381									X		X					
Hagar, Randy	<a href="mailto:randall.Hagar@acgov.org">randall.Hagar@acgov.org</a>	(510) 208-9789	X	X	X	X	X	X	X		X	X			X	X	X	X
Haggard, Jeff	<a href="mailto:haggard.jeff@srfd.ca.gov">haggard.jeff@srfd.ca.gov</a>	(916) 566-4372									X	X	X	X	X	X	X	X
Hanes, Pat	<a href="mailto:phanes@reddingpolice.org">phanes@reddingpolice.org</a>	(530) 225 4266						X	X	X	X	X	X	X	X	X	X	X
Hedgpeth, Roger	<a href="mailto:rhedgpeth@emsa.ca.gov">rhedgpeth@emsa.ca.gov</a>	(916) 322-4336	X	X	X	X												
Hlivak, Robert J.	<a href="mailto:robert.j.hlivak@hawaii.gov">robert.j.hlivak@hawaii.gov</a>	(808) 586 1930									X	X						

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])															
			5/16/02 – First (1 <sup>st</sup> ) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 <sup>nd</sup> ) RPC	4/14/03 – Third (3 <sup>rd</sup> ) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
		Ext. 013																
Hojeij, Wade	<a href="mailto:wade.hojeij@dgs.ca.gov">wade.hojeij@dgs.ca.gov</a>	(916) 657-9213							X	X	X	X	X	X	X	X	X	X
Johl, Balbir	<a href="mailto:balbir.johl@dgs.ca.gov">balbir.johl@dgs.ca.gov</a>	(916) 657-6131									X	X						
Johnson, Dan	<a href="mailto:dan_l_johnson@dot.ca.gov">dan_l_johnson@dot.ca.gov</a>	(916) 654-7273									X							
Kelleher, Dan	<a href="mailto:C12073@motorola.com">C12073@motorola.com</a>	(650) 318-3222									X	X					X	X
Kerr, Doug	<a href="mailto:doug@lpnwireless.com">doug@lpnwireless.com</a>	(707) 781-9210									X	X	X		X	X	X	
Kiener, Alex	<a href="mailto:alex.keener@co.santa-cruz.ca.us">alex.keener@co.santa-cruz.ca.us</a>	(831) 454-2025									X	X						
Klose, Heinz	<a href="mailto:hklose@placer.ca.gov">hklose@placer.ca.gov</a>	(530) 889-7740									X	X						
Knight, Curt	<a href="mailto:cknight@dps.state.az.us">cknight@dps.state.az.us</a>	(602) 223-2257									X							
Kostas, Mike	<a href="mailto:mkostas@marysville.ca.us">mkostas@marysville.ca.us</a>	(530) 749-3912									X	X	X		X		X	

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])															
			5/16/02 – First (1 <sup>st</sup> ) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 <sup>nd</sup> ) RPC	4/14/03 – Third (3 <sup>rd</sup> ) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Krout, Terry	<a href="mailto:tkrout@co.marin.ca.us">tkrout@co.marin.ca.us</a>	(415) 499-6584											X					
Laye, Tom	<a href="mailto:tlaye@ci.santa-clara.ca.us">tlaye@ci.santa-clara.ca.us</a>	(408) 615-5591	X	X	X		X	X							X	X		
Li, Sheung	<a href="mailto:sheung@atheros.com">sheung@atheros.com</a>	(408) 773-5295										X						
Lin, Vincent	<a href="mailto:vincent.lin@dgs.ca.gov">vincent.lin@dgs.ca.gov</a>	(916) 657-9118										X	X		X	X	X	
Lindly, Tom	<a href="mailto:tlindly@ci.santa-clara.ca.us">tlindly@ci.santa-clara.ca.us</a>	(408) 615-5593										X	X					
Linfor, Jon	<a href="mailto:jlinfor@sacsheriff.com">jlinfor@sacsheriff.com</a>	(916) 874-6734	X	X	X	X	X	X				X						
Lowry, George	<a href="mailto:george.lowry@oes.ca.gov">george.lowry@oes.ca.gov</a>	(916) 845-8608										X		X	X	X		
Marin, Glenn	<a href="mailto:gmarin@ixpcorp.com">gmarin@ixpcorp.com</a>	(562) 696-1286													X	X		
Martin, Mike	<a href="mailto:martin.mike@srfd.ca.gov">martin.mike@srfd.ca.gov</a>	(916) 566-4376										X						
Martzen, Ken	<a href="mailto:kmartzen@emsa.ca.gov">kmartzen@emsa.ca.gov</a>	(916) 255-4162													X	X	X	

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])															
			5/16/02 – First (1 <sup>st</sup> ) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 <sup>nd</sup> ) RPC	4/14/03 – Third (3 <sup>rd</sup> ) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
McRae, Mike	<a href="mailto:mmcrae@smud.org">mmcrae@smud.org</a>	(916) 732 6963	X															
Melton, Roger	<a href="mailto:roger.melton@dgs.ca.gov">roger.melton@dgs.ca.gov</a>	(916) 657-9132	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Moore, Randy	<a href="mailto:rmoore@co.alameda.ca.us">rmoore@co.alameda.ca.us</a>	(510) 618-3467					X											
Nash, Glen	<a href="mailto:glen.nash@dgs.ca.gov">glen.nash@dgs.ca.gov</a>	(916) 657-9454	X					X										
Olson, Albert	<a href="mailto:aolson@reddingpolice.org">aolson@reddingpolice.org</a>	(530) 225-4327									X	X						
Osborn, Michael	<a href="mailto:michael.Osborn@ci.stockton.ca.us">michael.Osborn@ci.stockton.ca.us</a>	(209) 937-8120																X
Overacker, Steve	<a href="mailto:sover@doit.co.contra-costa.ca.us">sover@doit.co.contra-costa.ca.us</a>	(925) 957-7701	X			X	X	X	X	X	X	X	X	X	X	X	X	X
Phillips, Laura	<a href="mailto:lphillips@ci.sunnyvale.ca.us">lphillips@ci.sunnyvale.ca.us</a>	(408) 730-7165									X	X						
Powell, John	<a href="mailto:jpowell@uslink.berkeley.edu">jpowell@uslink.berkeley.edu</a>	(510) 410-2858	X	X	X	X		X			X	X						

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])															
			5/16/02 – First (1 <sup>st</sup> ) RPC	7/25/02 - Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 <sup>nd</sup> ) RPC	4/14/03 – Third (3 <sup>rd</sup> ) RPC	6/17/03 – By-Laws, Ops & /IO WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Reid, Craig	<a href="mailto:creid@packehop.com">creid@packehop.com</a>	(650) 292-5002										X						
Rinehart, Bette	<a href="mailto:C18923@email.mot.com">C18923@email.mot.com</a>	(717) 334-0654									X	X						
Root, Don	<a href="mailto:don_root@oes.ca.gov">don_root@oes.ca.gov</a>	(916) 845-8601	X	X	X	X	X	X			X	X	X	X		X	X	
Sairanen, Scoop	<a href="mailto:scoop.sairanen@dgs.ca.gov">scoop.sairanen@dgs.ca.gov</a>	(916) 657-9166	X	X							X	X						
Sastry, Ambatipudi R.	<a href="mailto:asastry@packethop.com">asastry@packethop.com</a>	(650) 292-5003									X							
Schmidt, John	<a href="mailto:john_schmidt@dot.ca.gov">john_schmidt@dot.ca.gov</a>	(916) 654-6709					X											
Smith, Steve	<a href="mailto:steven.smith@tycoelectronics.com">steven.smith@tycoelectronics.com</a>	(206) 331-2357														X	X	
Stuber, Ken	<a href="mailto:kstuber@cityofsacramento.org">kstuber@cityofsacramento.org</a>	(916) 808-8511		X	X						X	X				X		
Talamantes, Carlos	<a href="mailto:carlos.talamantes@corr.ca.gov">carlos.talamantes@corr.ca.gov</a>	(916) 445 6203						X			X	X	X	X		X	X	
Thomson, Preston	<a href="mailto:thomsonp@apco911.org">thomsonp@apco911.org</a>	(916) 797-5395	X	X	X	X	X	X			X	X	X	X	X	X		

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])															
			5/16/02 – First (1 <sup>st</sup> ) RPC	7/25/02 – Operations & I/O WG	7/25/02 – Spectrum WG	8/29/02 – Spectrum WG	10/03/02 – Second (2 <sup>nd</sup> ) RPC	4/14/03 – Third (3 <sup>rd</sup> ) RPC	6/17/03 – By-Laws, Ops & I/O WG	6/18/03 – Spectrum WG	10/29/03 – First 4.9 GHz RPC	10/29/03 – Fourth 700 MHz RPC	12/04/03 – 4.9 GHz WG	12/04/03 – 700 MHz WG	2/05/04 – 4.9 GHz WG	2/05/04 – 700 MHz WG	3/11/04 – Second 4.9 GHz RPC	3/11/04 – Fifth 700 MHz RPC
Tolman, Tom	<a href="mailto:ttolman@du.edu">ttolman@du.edu</a>	(303) 871-4190									X	X						
Vallee, Rich	<a href="mailto:rich.vallee@dot.ca.gov">rich.vallee@dot.ca.gov</a>	(916) 445-0478									X	X						
Vell, Jim	<a href="mailto:vell.jim@smfd.ca.gov">vell.jim@smfd.ca.gov</a>	(916) 566-4373	X	X	X	X	X	X			X	X						
Wilson, Terry	<a href="mailto:twilson@sacsheriff.com">twilson@sacsheriff.com</a>	(916) 874-8323						X	X	X								
Worden, Tom	<a href="mailto:tom_worden@oes.ca.gov">tom_worden@oes.ca.gov</a>	(916) 845-8602	X	X	X													
Wright, Robert	<a href="mailto:robert_wright@amr-ems.com">robert_wright@amr-ems.com</a>	(209) 238-4855						X										
Yuson, Tony	<a href="mailto:tyuson@co.sanmateo.ca.us">tyuson@co.sanmateo.ca.us</a>	(916) 599 1065	X	X	X													

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])												
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Akbari, Jason	<a href="mailto:jason_akbari@dot.ca.gov">jason_akbari@dot.ca.gov</a>	(916) 654-6661					X	X							
Alga, Gene	<a href="mailto:galga@co.alameda.ca.us">galga@co.alameda.ca.us</a>	(510) 667-7791													
Allison, Ron	<a href="mailto:allison@sna.com">allison@sna.com</a>	(916) 875-3153													
Azevedo, Angela	<a href="mailto:aazevedo@chp.ca.gov">aazevedo@chp.ca.gov</a>	(916) 375-2501					X	X	X	X					
Baker, Chris	<a href="mailto:cbaker@roseville.ca.us">cbaker@roseville.ca.us</a>	(916) 847-8480									X	X	X		
Barush, Roy	<a href="mailto:rbarush@co.napa.ca.us">rbarush@co.napa.ca.us</a>	(707) 299-1301											X	X	
Betts, Terry	<a href="mailto:tbett@so.co.contra-costa.ca.us">tbett@so.co.contra-costa.ca.us</a>	(925) 313-2453													
Biancalana, Carol	<a href="mailto:cbiancal@emsa.ca.gov">cbiancal@emsa.ca.gov</a>	(916) 322-4336													
Blau, Jeff	<a href="mailto:jeff.blau@motorola.com">jeff.blau@motorola.com</a>	(925) 484-3002													

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])												
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Breen, Matthew	<a href="mailto:matthew.breen@newark.org">matthew.breen@newark.org</a>	(510) 790-7587												X	X
Brown, Matt	<a href="mailto:mbrown@tallycom.com">mbrown@tallycom.com</a>	(510) 783-2111													
Bruinzeel, Jasper	<a href="mailto:Jasper.bruinzeel@alvarion.com">Jasper.bruinzeel@alvarion.com</a>	(760) 517-3149								X	X		X		
Bryant, Doris	<a href="mailto:dbryant@co.alameda.ca.us">dbryant@co.alameda.ca.us</a>	(510) 208-9789													
Buchanan, David	<a href="mailto:dbuchanan@isd.sbcounty.org">dbuchanan@isd.sbcounty.org</a>	(909) 387-3337											X		
Byard, Chuck	<a href="mailto:byard@ci.redding.ca.us">byard@ci.redding.ca.us</a>	(530) 949 1560													
Cassani, Tom	<a href="mailto:cassani@ci.walnut-creek.ca.us">cassani@ci.walnut-creek.ca.us</a>	(925) 256-3597													
Coates, James	<a href="mailto:jim.coats@911.sccgov.org">jim.coats@911.sccgov.org</a>	(408) 977-3210					X	X							
Cook, Mary	<a href="mailto:mcook@emsa.ca.gov">mcook@emsa.ca.gov</a>	(916) 322-4336												X	X
Conde, Kevin	<a href="mailto:kconde@marysville.ca.us">kconde@marysville.ca.us</a>	(530) 822-2940													

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])												
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Conley, Wayne	<a href="mailto:wayne.conley@acgov.org">wayne.conley@acgov.org</a>	(510) 667-7788		X						X					
Crawford, Criss	<a href="mailto:criss_crawford@amr-ems.com">criss_crawford@amr-ems.com</a>	(209) 567-4027													
Robert Cross	<a href="mailto:cross2225@comcast.net">cross2225@comcast.net</a>	(530) 671-0228													
Cummings, Corey	<a href="mailto:corey.cummings@corr.ca.gov">corey.cummings@corr.ca.gov</a>	(916) 324-2691													
De Camp, Bill	<a href="mailto:william.decamp@dgs.ca.gov">william.decamp@dgs.ca.gov</a>	(916) 657-9205	X	X	X	X	X	X	X	X	X	X	X	X	X
deCastro, Glenn	<a href="mailto:glenn.decastro@sfgov.org">glenn.decastro@sfgov.org</a>	(415) 558-3816												X	X
Divine, Steve	<a href="mailto:steve.devine@mshp.dps.mo.gov">steve.devine@mshp.dps.mo.gov</a>	(573) 526-6105											X		
Doble, Mike	<a href="mailto:mdoble@proxim.com">mdoble@proxim.com</a>	(925) 735-9848	X	X	X	X	X	X	X	X	X	X	X	X	X
Dupre, Steve	<a href="mailto:sdupre@co.sanmateo.ca.us">sdupre@co.sanmateo.ca.us</a>	(650) 363-4443					X	X							
Eierman, Dave	<a href="mailto:david.eierman@motorola.com">david.eierman@motorola.com</a>	(410) 712-6242													

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])												
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 – Seventh 700 MHz RPC
Eldridge, Kent	<a href="mailto:eldridgek@saccounty.net">eldridgek@saccounty.net</a>	(916) 875-6438	X	X	X	X	X	X	X	X	X	X	X		
Elwell, Dennis	<a href="mailto:dennis.elwell@dgs.ca.gov">dennis.elwell@dgs.ca.gov</a>	(916) 657-9459													
Engstrom, Harry	<a href="mailto:hengstro@co.alameda.ca.us">hengstro@co.alameda.ca.us</a>	(510) 667-7788													
Finster, Brent	<a href="mailto:bfins@cccfd.org">bfins@cccfd.org</a>	(925) 930-5550													
Forrest, Greg	<a href="mailto:gforrest@macro.com">gforrest@macro.com</a>	(925) 210-1500 Ext: 222												X	X
Fox, John	<a href="mailto:jfox@police.uscf.edu">jfox@police.uscf.edu</a>	(415) 476-9240													
Funk, Dave	<a href="mailto:dafunk@du.edu">dafunk@du.edu</a>	(303) 871-2439													
Gibbons, Patricia	<a href="mailto:patricia.gibbons@ci.sj.ca.us">patricia.gibbons@ci.sj.ca.us</a>	(408) 277-4082													
Goode, Charles	<a href="mailto:cgoode@police.ucsf.edu">cgoode@police.ucsf.edu</a>	(415) 476-0620						X							X
Graillat, Chris	<a href="mailto:cgraillat@emsa.ca.gov">cgraillat@emsa.ca.gov</a>	(916) 322-4336			X		X	X							

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])												
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Grant, Shelley	<a href="mailto:sgrant@marin.org">sgrant@marin.org</a>	(415) 499-7313													
Graves, Tim	<a href="mailto:tim.graves@dgs.ca.gov">tim.graves@dgs.ca.gov</a>	(916) 657-9260							X	X	X	X	X	X	X
Grootveld, Gary	<a href="mailto:gary.grootveld@dgs.ca.gov">gary.grootveld@dgs.ca.gov</a>	(916) 657-9381													
Hagar, Randy	<a href="mailto:randall.hagar@acgov.org">randall.hagar@acgov.org</a>	(510) 208-9789	X	X	X		X	X			X	X	X	X	X
Haggard, Jeff	<a href="mailto:haggard.jeff@srfd.ca.gov">haggard.jeff@srfd.ca.gov</a>	(916) 566-4372	X	X											
Hamilton, Larry	<a href="mailto:hamiltonl@saccounty.net">hamiltonl@saccounty.net</a>	(916) 874-2489									X	X			
Hanes, Pat	<a href="mailto:phanes@reddingpolice.org">phanes@reddingpolice.org</a>	(530) 225 4266			X	X	X	X	X	X					
Harman, Ron	<a href="mailto:ron.harman@motorola.com">ron.harman@motorola.com</a>							X							
Hedgpeth, Roger	<a href="mailto:rhedgpeth@emsa.ca.gov">rhedgpeth@emsa.ca.gov</a>	(916) 322-4336													
Herold, Tom	<a href="mailto:therold@bart.gov">therold@bart.gov</a>	(510) 464-6535					X	X							
Hlivak, Robert J.	<a href="mailto:robert.j.hlivak@hawaii.gov">robert.j.hlivak@hawaii.gov</a>	(808) 586 1930													

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])												
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
		Ext. 013													
Hoang, Terri	<a href="mailto:Terri.hoang@cityofpaloalto.org">Terri.hoang@cityofpaloalto.org</a>	(650) 496-6969							X	X					
Hojeij, Wade	<a href="mailto:wade.hojeij@dgs.ca.gov">wade.hojeij@dgs.ca.gov</a>	(916) 657-9213			X	X									
Isaac, John	<a href="mailto:jisaac@clarecomputer.com">jisaac@clarecomputer.com</a>	(925) 277-0690											X	X	
Johl, Balbir	<a href="mailto:balbir.johl@dgs.ca.gov">balbir.johl@dgs.ca.gov</a>	(916) 657-6131													
Johnson, Dan	<a href="mailto:dan_l_johnson@dot.ca.gov">dan_l_johnson@dot.ca.gov</a>	(916) 654-7273									X	X			
Kelleher, Dan	<a href="mailto:C12073@motorola.com">C12073@motorola.com</a>	(650) 318-3222					X	X						X	X
Kerr, Doug	<a href="mailto:dougker@attglobal.net">dougker@attglobal.net</a>	(707) 433-2477					X	X	X	X			X	X	
Kiener, Alex	<a href="mailto:alex.keener@co.santa-cruz.ca.us">alex.keener@co.santa-cruz.ca.us</a>	(831) 454-2025													
Klose, Heinz	<a href="mailto:hklose@placer.ca.gov">hklose@placer.ca.gov</a>	(530) 889-7740						X							

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])												
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Knight, Curt	<a href="mailto:cknight@dps.state.az.us">cknight@dps.state.az.us</a>	(602) 223-2257													
Kostas, Mike	<a href="mailto:mkostas@marysville.ca.us">mkostas@marysville.ca.us</a>	(530) 749-3912													
Krout, Terry	<a href="mailto:tkrout@co.marin.ca.us">tkrout@co.marin.ca.us</a>	(415) 499-6584													
Laye, Tom	<a href="mailto:tlaye@ci.santa-clara.ca.us">tlaye@ci.santa-clara.ca.us</a>	(408) 615-5591					X	X	X	X					
Leatherman, Rick	<a href="mailto:rleatherman@dataradio.com">rleatherman@dataradio.com</a>	(480) 361-6125											X	X	
Li, Sheung	<a href="mailto:sheung@atheros.com">sheung@atheros.com</a>	(408) 773-5295													
Lin, Vincent	<a href="mailto:vincent.lin@dgs.ca.gov">vincent.lin@dgs.ca.gov</a>	(916) 657-9118			X	X									
Lindly, Tom	<a href="mailto:tlindly@ci.santa-clara.ca.us">tlindly@ci.santa-clara.ca.us</a>	(408) 615-5593													
Linfor, Jon	<a href="mailto:jlinfor@sacsheriff.com">jlinfor@sacsheriff.com</a>	(916) 874-6734													
Longnecker, Jim	<a href="mailto:jim.longnecker@dacom-co.com">jim.longnecker@dacom-co.com</a>	(916) 422-0665					X								

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])												
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Lowry, George	<a href="mailto:george.lowry@oes.ca.gov">george.lowry@oes.ca.gov</a>	(916) 845-8608	X												
Marin, Glenn	<a href="mailto:gmarin@ixpcorp.com">gmarin@ixpcorp.com</a>	(562) 696-1286													
Martin, Mike	<a href="mailto:martin.mike@srfd.ca.gov">martin.mike@srfd.ca.gov</a>	(916) 566-4376													
Martzen, Ken	<a href="mailto:kmartzen@emsa.ca.gov">kmartzen@emsa.ca.gov</a>	(916) 255-4162									X				
McRae, Mike	<a href="mailto:mmcrae@smud.org">mmcrae@smud.org</a>	(916) 732 6963													
Meditz, Mike	<a href="mailto:mike.meditz@acgov.org">mike.meditz@acgov.org</a>	(510) 272-3636													X
Melton, Roger	<a href="mailto:roger.melton@dgs.ca.gov">roger.melton@dgs.ca.gov</a>	(916) 657-9132	X	X	X	X	X	X	X	X	X	X	X		
Middlebrooks, Andy	<a href="mailto:amiddlebrooks@dataradio.com">amiddlebrooks@dataradio.com</a>	(770) 392-0002 Extension 250												X	X
Moore, Randy	<a href="mailto:randall.Moore@acgov.org">randall.Moore@acgov.org</a>	(510) 618-3467													
Morris, Laurel	<a href="mailto:laurel.morris@cityofpaloalto.org">laurel.morris@cityofpaloalto.org</a>	(650) 329-2661					X	X	X	X	X	X			
Nash, Glen	<a href="mailto:glen.nash@dgs.ca.gov">glen.nash@dgs.ca.gov</a>	(916) 657-9454													

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])												
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Nydam, Mike	<a href="mailto:mike@airaya.com">mike@airaya.com</a>	(408) 776-9583												X	
Ockers, Ben	<a href="mailto:bockers@terabeam.com">bockers@terabeam.com</a>	(408) 617-8150									X	X	X		
Olson, Albert	<a href="mailto:aolson@reddingpolice.org">aolson@reddingpolice.org</a>	(530) 225-4327													
Osborn, Michael	<a href="mailto:michael.Osborn@ci.stockton.ca.us">michael.Osborn@ci.stockton.ca.us</a>	(209) 937-8120	X	X	X	X	X	X	X	X					
Overacker, Steve	<a href="mailto:sover@doit.co.contra-costa.ca.us">sover@doit.co.contra-costa.ca.us</a>	(925) 957-7701		X	X	X	X	X	X	X	X	X	X	X	X
Pabst, Bill	<a href="mailto:bpabst@airaya.com">bpabst@airaya.com</a>	(408) 776-9583												X	
Phillips, Laura	<a href="mailto:Lphillips@ci.sunnyvale.ca.us">Lphillips@ci.sunnyvale.ca.us</a>	(408) 730-7165													
Powell, John	<a href="mailto:jpowell@uslink.berkeley.edu">jpowell@uslink.berkeley.edu</a>	(510) 410-2858													
Reid, Craig	<a href="mailto:creid@packehop.com">creid@packehop.com</a>	(650) 292-5002													
Rinehart, Bette	<a href="mailto:C18923@email.mot.com">C18923@email.mot.com</a>	(717) 334-0654													

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])												
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Root, Don	<a href="mailto:don_root@oes.ca.gov">don_root@oes.ca.gov</a>	(916) 845-8601									X	X	X	X	X
Rowland, Gregg Rowland, Anne	<a href="mailto:gregg@packethop.com">gregg@packethop.com</a>	(650) 292-5006					X								
Sairanen, Scoop	<a href="mailto:scoop.sairanen@dgs.ca.gov">scoop.sairanen@dgs.ca.gov</a>	(916) 657-9166			X										
Sastry, Ambatipudi R.	<a href="mailto:asastry@packethop.com">asastry@packethop.com</a>	(650) 292-5003													
Schmidt, John	<a href="mailto:john_schmidt@dot.ca.gov">john_schmidt@dot.ca.gov</a>	(916) 654-6709					X	X			X	X	X		
Scott, Eric	<a href="mailto:eric.scott@dgs.ca.gov">eric.scott@dgs.ca.gov</a>	(916) 657-9184											X		
Shearn, Donna	<a href="mailto:donna.shearn@newark.org">donna.shearn@newark.org</a>	(510) 794-2379													X
Smith, Steve	<a href="mailto:steven.smith@tycoelectronics.com">steven.smith@tycoelectronics.com</a>	(206) 331-2357					X	X							
Staylon, Wayne	<a href="mailto:staylonw@mail.co.stanislaus.ca.us">staylonw@mail.co.stanislaus.ca.us</a>	(209) 552-3900			X	X									
Stuber, Ken	<a href="mailto:kstuber@cityofsacramento.org">kstuber@cityofsacramento.org</a>	(916) 808-8511					X	X	X	X	X	X	X	X	X

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])												
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC	04/21/05 –Seventh 700 MHz RPC
Svoboda, Krasna	<a href="mailto:k.svoboda@mac.com">k.svoboda@mac.com</a>						X	X							
Talamantes, Carlos	<a href="mailto:carlos.talamantes@corr.ca.gov">carlos.talamantes@corr.ca.gov</a>	(916) 445 6203					X	X						X	X
Thomson, Preston	<a href="mailto:thomsonp@apco911.org">thomsonp@apco911.org</a>	(916) 797-5395												X	X
Tognetti, Dan	<a href="mailto:dtognetti@cityofnapa.org">dtognetti@cityofnapa.org</a>	(707) 257-9527												X	X
Tolman, Tom	<a href="mailto:ttolman@du.edu">ttolman@du.edu</a>	(303) 871-4190													
Tong, Al	<a href="mailto:al.tong@sfgov.org">al.tong@sfgov.org</a>	(415) 558-3810												X	X
Vallee, Rich	<a href="mailto:rich.vallee@dot.ca.gov">rich.vallee@dot.ca.gov</a>	(916) 445-0478													
Vell, Jim	<a href="mailto:vell.jim@smfd.ca.gov">vell.jim@smfd.ca.gov</a>	(916) 566-4373													
Wilson, Terry	<a href="mailto:twilson@sacsheriff.com">twilson@sacsheriff.com</a>	(916) 874-8323													
Worden, Tom	<a href="mailto:tom_worden@oes.ca.gov">tom_worden@oes.ca.gov</a>	(916) 845-8602													

## REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS

Attendees	Email Address	Phone #	MEETING TYPE (RPC, Workgroup [WG], or Subgroup [SG])											
			4/22/04 – 4.9 GHz WG	4/22/04 – 700 MHz WG	6/22/04 – 4.9 GHz WG	6/22/04 – 700 MHz WG	7/15/04 – Third 4.9 GHz RPC	7/15/04 – Sixth 700 MHz RPC	8/24/04 - 4.9 GHz WG	8/24/04 – 700 MHz WG	12/07/04 – 4.9 GHz WG	12/07/04 – 700 MHz WG	01/04/05 – 4.9 GHz SSG	04/21/05 – Fourth 4.9 GHz RPC
Wright, Robert	<a href="mailto:robert_wright@amr-ems.com">robert_wright@amr-ems.com</a>	(209) 238-4855												
Yuson, Tony	<a href="mailto:tyuson@co.sanmateo.ca.us">tyuson@co.sanmateo.ca.us</a>	(916) 599 1065					X	X						

## **REGION 6 – 4.9 GHz REGIONAL PLAN EXHIBITS**

### **EXHIBIT C.1**

April 2004 Survey For Determining Each Eligible Agency's Need For Public Safety Frequencies In The  
4.9 GHz Band

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

April 15<sup>th</sup>, 2004

Any Eligible Region 5 & 6 Public Safety/Public Service Organization  
California, U.S.A

Attn: Public Safety Communications Managers

Subject: Imminently Available Broadband Public Safety Spectrum in the  
4.9 GHz Band

Reference: The MS Word and .pdf survey documents posted on April 15<sup>th</sup>  
available on the Region 5 (CPRA) and Region 6 websites ([www.cpra.org](http://www.cpra.org)  
and [www.rgn6rpc.org](http://www.rgn6rpc.org) respectively).

Dear Sir or Madam:

**4.9 GHz Public Safety Spectrum**

Acting on WT Docket 00-32, in April 2003 the FCC adopted new service rules for the 50 megahertz of spectrum in the 4940 – 4990 MHz band (also known as the 4.9 GHz band). This spectrum has been reallocated from Federal Government use to Public Safety use for wide bandwidth data systems on a primary basis, and fixed (point-to-point) links on a secondary basis. In adopting the Rules for this new spectrum, the FCC again adopted the Regional Planning Committee (RPC) process to coordinate the spectrum at a Regional level.

**Regional Planning and Spectrum** (*What is it, how much is there, and who will administer it?*)

The 4.9 GHz band is intended to accommodate a variety of new broadband applications such as high-speed digital technologies and wireless local area networks (LAN) for incident scene management, dispatch operations and vehicular operations. This includes mobile operations, fixed hotspot use (similar to what is common with Wi-Fi), and temporary fixed links, as well as fixed point-to-point operations on a secondary basis. In addition, technology planned for this frequency band also includes the ability for the automatic formation of “Ad-Hoc” wireless LANs composed of the wireless data network elements of diverse agency units as they arrive on scene at an incident.

## **SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

The FCC established a “jurisdictional” geographical licensing approach for operations in this band, whereby licensees will be licensed for the full 50 MHz and will be authorized to operate in those geographic areas over which they have jurisdiction, but they will be required to cooperate with others in the shared use of the spectrum. This band is also intended to foster interoperability by providing a regulatory framework in which traditional public safety entities can pursue strategic partnerships with both traditional public safety entities, such as the Federal Government, and non-traditional public safety entities, such as utilities and commercial entities, in support of their missions regarding homeland security and protection of life and property.

The 50 MHz spectrum of this frequency band consists of ten each 1 MHz wide channels and eight each 5 MHz channels, which can be aggregated if necessary to form wider channels up to a 20 MHz bandwidth maximum where higher data rates are desired. Maximum transmit power allowed in this band is 2 watts when a maximum bandwidth channel is required. Use of this spectrum in some areas is restricted based upon existing military training use and on radio astronomy applications. Refer to link [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-03-99A1.doc](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-03-99A1.doc) for the FCC's Memorandum Opinion and Order and Third Report and Order of FCC Docket 00-32 detailing this 4.9 GHz public safety band.

Regional Planning Committees (RPCs) are allowed maximum flexibility to meet state and local needs, encourage innovative use of the spectrum, and accommodate new and as yet unanticipated developments in technology equipment. They are responsible for creating and managing regional plans. For this planning activity, your *local, regional, state and tribal public safety/public service agency (or authorized multi-agency collective)* – *hereinafter referred to as “organization”* – is either located in Region 5 (comprising the 10 California counties south of Monterey, Kings, Tulare, and Inyo Counties) or Region 6 (comprising the 48 California counties north of San Luis Obispo, Kern, and San Bernardino Counties. See <http://wireless.fcc.gov/publicsafety/700MHz/plans.html> for further information.

### **Eligibility**

Eligibility requirements for deploying/operating systems in the 4.9 GHz frequency band are as follows. Organizations meeting the eligibility criteria found in 47 Codes of Federal Regulations (CFR) §90.1203 and §90.523,

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

*both titled "Eligibility" (included as Attachment II for your convenience) may deploy/operate a wireless public safety communication system incorporating this imminently available 4.9 GHz public safety spectrum subject to all the Federal Communications Commission rules/conditions associated with its usage. Note: Internet addresses for a few websites providing multiple links to additional 4.9 GHz information have been provided in Attachment III for your convenience.*

**Solicitation of Interest**

Subsequent to perusing and acknowledging all related conditions, if your organization envisions the development/deployment of a system that will make use of this 4.9 GHz spectrum and has a committed interest in doing so, you are asked to respond to the questionnaire below.

**Questionnaire**

The 4.9 GHz Region 5 and Region 6 Regional Planning Committee Spectrum Workgroups are each (both separately and collaboratively) working on their overall spectrum plans which will be adopted by their full committees, and ultimately the FCC. As part of this effort, these California Spectrum Workgroups require information from your organization. Please fill out the Questionnaire titled *Questionnaire Seeking Quantifying and Qualifying Information Regarding Each Organization's Intended Use of the 4.9 GHz Spectrum* found in Attachment I. As this matter has significant, long-term implications, we urge all eligible organizations to fully evaluate their interest with staff and superiors, and to quantify and qualify their anticipated use of the subject spectrum.

We are seeking responses to the attached survey questions not later than June 1<sup>st</sup>, 2004. Whether your agency is in Region 5 or Region 6, please submit your response electronically, or by mail to the address below<sup>1</sup>:

William De Camp c/o CA DGS Telecommunications Division  
601 Sequoia Pacific Boulevard, MS# WH7  
Sacramento, CA 95814-0282

Call me at (916) 657-9205 or email me at [william.decamp@dgs.ca.gov](mailto:william.decamp@dgs.ca.gov) if you have questions regarding the foregoing.

Sincerely,

---

<sup>1</sup> For simplicity's sake, William De Camp has been authorized to be the recipient for both Region 5 and 6 – 4.9 GHz survey responses.

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

Bill De Camp, Chairperson  
Region 6 – 4.9 GHz Regional Planning Committee

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

**Attachment Table of Contents**

<b>Attachment #</b>	<b>Title</b>	<b>Page</b>
Attachment I	Questionnaire Seeking Quantifying and Qualifying Information Regarding Each Organization's Intended Use of the 4.9 GHz Wireless Broadband Spectrum	6
Attachment II	47 Code of Federal Regulations (CFR) §90.523 ( <i>Eligibility For Systems Operating In The 764-776 MHz And 794-806 MHz Frequency Bands</i> ), and 47 Code of Federal Regulations (CFR) §90.1203 ( <i>Eligibility For Systems Operating In The 4,940 to 4,990 MHz Frequency Band</i> )	23
Attachment III	Links to additional 4.9 GHz information	25

# ATTACHMENT I

Questionnaire Seeking Quantifying and  
Qualifying Information Regarding Each  
Organization's Intended Use of the 4.9 GHz  
Spectrum

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

**Questionnaire Seeking Quantifying and Qualifying Information  
Regarding Each Organization's Intended Use of the 4.9 GHz  
Broadband Spectrum**

The general term "ORGANIZATION" as used throughout the following questionnaire implies either:

- Any local, regional, state, or tribal public safety/public service ***single agency or bureau***. Some examples include: San Jose Fire Department; Placer County Sheriff's Office; and Bay Area Rapid Transit District), **or**
- Any local, regional, state, or tribal public safety/public service formal ***multi-agency or multi-bureau cooperative***. Some examples include: the Yolo County Communications Emergency Service Agency (YCCESA) – a Joint Powers Agency; and the County of Sacramento Regional Radio Communications System - Systems Management Group)

The term "SERVICE AREA" as used throughout this questionnaire describes the area throughout which your organization has jurisdiction **and** a need for wireless public safety radio communications coverage. In many cases, service areas are defined by geopolitical boundaries; for example, a County boundary often<sup>2</sup> defines a County's service area throughout which County wireless public safety radio communications services would typically be desirable or necessary.

Many organizations have only one Service Area; however, if your organization is comprised of multiple Service Areas, copy Question #2's tables, and complete the appropriate table for each unique Service Area, or set of Service Areas. Give each Service Area an abbreviated location/agency descriptor such as San Jose Fire, or Redding Police & Fire, and tie each to a Service Area # starting with "1", then "2", et cetera, because the tables in Questions 3 through 8 seek further information based on Service Area #'s 1, 2, 3, 4, et cetera.

For your convenience, the responses to two unique scenarios have been included at the end of each question on the survey form (with the exceptions of Question #'s 1 and 9 for which the responses are self-explanatory).

---

<sup>2</sup> Exceptions include Counties containing National Parks, Military Test Ranges, et cetera.  
Final 4.9 GHz Survey 04-15-04.doc

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

1. *Who in your organization is sanctioned to address future communications needs, and coordinate organization decisions relative to this important opportunity; what is their contact information?*

<b>Contact</b>	
<i>Name:</i>	

<b>Contact Information</b>	
<i>Title:</i>	
<i>Organization:</i>	
<i>Mailing Address:</i>	
<i>Office Phone #:</i>	
<i>Mobile Phone #:</i>	
<i>FAX # :</i>	
<i>Pager #:</i>	
<i>Email Address:</i>	

<i>Comments:</i>

*Signature:* \_\_\_\_\_

*Date:* \_\_\_\_\_

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

2. *Describe each of your organization's Service Areas. In most cases, Service Areas are defined by geopolitical boundaries; for example, a County boundary defines a County's Service Area.*

Instructions: Please fill out the table(s) below applying to your organization's jurisdiction(s). Some organizations have only one Service Area; however, if your organization is comprised of multiple Service Areas, complete the appropriate table for each Service Area(s)(copy Question #2's tables as necessary).

*One of the tables below will apply to each Service Area type. If your service area(s) comprise(s):*

- |  |                                    |
|--|------------------------------------|
| ○ <i>a city, or part of a city</i>   | <i>complete Table 2.1</i>          |
| ○ <i>unincorporated land</i>   | <i>complete Table 2.2</i>          |
| ○ <i>multiple areas within a county</i>  | <i>complete Table 2.3</i>          |
| ○ <i>a single county</i>   | <i>complete Table 2.4</i>          |
| ○ <i>a Northern CA area greater than a single county</i>   | <i>complete Table 2.5</i>          |
| ○ <i>a Southern CA area greater than a single county</i>   | <i>complete Table 2.6</i>          |
| ○ <i>If coverage is required in every California county, so state in comments under both Table 2.5 and Table 2.6</i> | <i>complete Tables 2.5 and 2.6</i> |

**TABLE 2.1 – COMPLETE IF YOUR SERVICE AREA  
(JURISDICTIONAL AREA) ENCOMPASSES ONLY ONE  
ENTIRE CITY, OR PART OF A CITY**

*If your jurisdiction encompasses only **one** full City, name the City. If your jurisdiction encompasses only part of the City, name the City – **AND INCLUDE A MAP SHOWING YOUR JURISDICTIONAL BOUNDARIES:***

	<i>Enter City name below</i>
<b>City:</b>	

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

*Describe your organization's Service Area (Question #2 continued from previous page).*

**TABLE 2.2 – COMPLETE IF YOUR SERVICE AREA  
ENCOMPASSES PRIMARILY UNINCORPORATED (RURAL)  
LAND (I.E., A FIRE DISTRICT COMPRISING UNPOPULATED  
AND/OR LIGHTLY POPULATED AREAS)**

<i>If your jurisdiction encompasses only unincorporated land, name the City closest to the incorporated jurisdictional area - <b>AND INCLUDE A MAP SHOWING YOUR JURISDICTIONAL BOUNDARIES:</b></i>	
	<i>Enter City name below</i>
<b>City:</b>	

**TABLE 2.3 – COMPLETE IF YOUR SERVICE AREA(S) CONSIST  
OF URBAN AND/OR SUBURBAN AREA(S) LESS THAN ONE  
COUNTY, BUT MORE THAN ONE CITY IN SIZE**

<i>If your jurisdiction comprises more area than one City, but not an entire County, name the affected Cities – <b>AND INCLUDE A MAP SHOWING YOUR JURISDICTIONAL BOUNDARIES:</b></i>			
<b>City Names</b>			
<b>City #1:</b>		<b>City #11:</b>	
<b>City #2:</b>		<b>City #12:</b>	
<b>City #3:</b>		<b>City #13:</b>	
<b>City #4:</b>		<b>City #14:</b>	
<b>City #5:</b>		...	
<b>City #6:</b>		<b>City # "N"</b>	
<b>City #7:</b>			
<b>City #8:</b>		<b>Example #1: Jurisdiction includes two Cities</b>	
<b>City #9:</b>		<b>City 100</b>	<b>City A (see map on next page)</b>
<b>City #10:</b>		<b>City 101</b>	<b>City B (see map on next page)</b>

*Describe your organization's Service Area (Question #2 continued from previous page).*

**TABLE 2.4 – COMPLETE IF YOUR SERVICE AREA ENCOMPASSES  
ONE ENTIRE COUNTY**

<i>If your jurisdiction consists of <b>one entire</b> County, name County:</i>	
	<i>Enter County name below</i>
<b>County:</b>	

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

*Describe your organization's Service Area (Question #2 continued)*

**TABLE 2.5 – COMPLETE IF YOUR SERVICE AREA ENCOMPASSES  
MORE THAN ONE REGION 6 NORTHERN CA COUNTY**

<p><i>If your jurisdiction comprises more area than one County, checkmark all Counties affected below – <b>AND INCLUDE A MAP SHOWING YOUR JURISDICTIONAL BOUNDARIES:</b></i></p>							
<p><b>County Name (check all Counties within which you require radio coverage)*</b></p>							
Alameda	<input type="checkbox"/>		Madera	<input type="checkbox"/>		San Mateo	<input type="checkbox"/>
Alpine	<input type="checkbox"/>		Marin	<input type="checkbox"/>		Santa Clara	<input type="checkbox"/>
Amador	<input type="checkbox"/>		Mariposa	<input type="checkbox"/>		Santa Cruz	<input type="checkbox"/>
Butte	<input type="checkbox"/>		Mendocino	<input type="checkbox"/>		Shasta	<input type="checkbox"/>
Calaveras	<input type="checkbox"/>		Merced	<input type="checkbox"/>		Sierra	<input type="checkbox"/>
Colusa	<input type="checkbox"/>		Modoc	<input type="checkbox"/>		Siskiyou	<input type="checkbox"/>
Contra Costa	<input type="checkbox"/>		Mono	<input type="checkbox"/>		Solano	<input type="checkbox"/>
Del Norte	<input type="checkbox"/>		Monterey	<input type="checkbox"/>		Sonoma	<input type="checkbox"/>
El Dorado	<input type="checkbox"/>		Napa	<input type="checkbox"/>		Stanislaus	<input type="checkbox"/>
Fresno	<input type="checkbox"/>		Nevada	<input type="checkbox"/>		Sutter	<input type="checkbox"/>
Glenn	<input type="checkbox"/>		Placer	<input type="checkbox"/>		Tehama	<input type="checkbox"/>
Humboldt	<input type="checkbox"/>		Plumas	<input type="checkbox"/>		Trinity	<input type="checkbox"/>
Inyo	<input type="checkbox"/>		Sacramento	<input type="checkbox"/>		Tulare	<input type="checkbox"/>
Kings	<input type="checkbox"/>		San Benito	<input type="checkbox"/>		Tuolumne	<input type="checkbox"/>
Lake	<input type="checkbox"/>		San Francisco	<input type="checkbox"/>		Yolo	<input type="checkbox"/>
Lassen	<input type="checkbox"/>		San Joaquin	<input type="checkbox"/>		Yuba	<input type="checkbox"/>

<b>Comments:</b>

**TABLE 2.6 – COMPLETE IF YOUR SERVICE AREA ALSO INCLUDES  
ALL OR PORTIONS OF REGION 5 SOUTHERN CA COUNTIES**

<p><i>If your jurisdiction comprises more area than one County, checkmark all Counties affected below – <b>AND INCLUDE A MAP SHOWING YOUR JURISDICTIONAL BOUNDARIES:</b></i></p>						
<p><b>County Name (check all Counties within which you require radio coverage)*</b></p>						
Imperial	<input type="checkbox"/>		Orange	<input type="checkbox"/>	San Diego	<input type="checkbox"/>
Kern	<input type="checkbox"/>		Riverside	<input type="checkbox"/>	San Louis Obispo	<input type="checkbox"/>
Los Angeles	<input type="checkbox"/>		San Bernardino	<input type="checkbox"/>	Santa Barbara	<input type="checkbox"/>
	<input type="checkbox"/>			<input type="checkbox"/>	Ventura	<input type="checkbox"/>

<b>Comments:</b>

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

3. *Assign each unique geographic area identified in Question #2 above an abbreviated location/discipline descriptor such as San Francisco Fire, or Redding Police & Fire, and tie each to a Service Area # starting with "1", then "2", et cetera, for use in your responses to subsequent Questions. If your geographic jurisdiction exceeds one City or County in size, break it up (as in Table #'s 2.3 and 2.5 above) into city- or county-sized Service Areas for the purposes of this survey; for example, if your jurisdiction includes the contiguous Counties of Sacramento, the western portion of Placer, and the western portion of El Dorado, list Sacramento County's Service Area as #N, Placer County's as #N+1, and El Dorado County's as N+2 (see Table 3.1 below for an example of this case).*

**TABLE 3.1 – CORRELATES SERVICE AREA # WITH  
LOCATION/DISCIPLINE DESCRIPTOR**

<b><i>Enter Location/ Discipline Descriptor Below</i></b>		<b>Service Area #</b>
	<i>operates within</i>	<b><i>Service Area #1</i></b>
	<i>operates within</i>	<b><i>Service Area #2</i></b>
	<i>operates within</i>	<b><i>Service Area #3</i></b>
	<i>operates within</i>	<b><i>Service Area #4</i></b>
	<i>operates within</i>	<b><i>Service Area #5</i></b>
	<i>operates within</i>	<b><i>Service Area #6</i></b>
	<i>operates within</i>	<b><i>Service Area #7</i></b>
	<i>operates within</i>	<b><i>Service Area #8</i></b>
	<i>operates within</i>	<b><i>Service Area #9</i></b>
	<i>operates within</i>	<b><i>Service Area #10</i></b>
	<i>operates within</i>	<b><i>Service Area #11</i></b>
	<i>operates within</i>	<b><i>Service Area #12</i></b>
	...	...
	<i>operates within</i>	<b><i>Service Area # "N"</i></b>

Avalon

<b><i>Comments:</i></b>

<b><i>Examples:</i></b>		
<b><i>Utopia Police &amp; Fire</i></b>	<b><i>operates within</i></b>	<b><i>Service Area #1</i></b>
<b><i>Avalon Police</i></b>	<b><i>operates within</i></b>	<b><i>Service Area #2</i></b>
<b><i>Heavenly County SO, Fire, and PW</i></b>	<b><i>operates within</i></b>	<b><i>Service Area #3</i></b>

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

4. *What number of California citizens will be served by your organization's systems; that is, what is the approximate population of citizens within your Service Area(s)? Include projected population growth rates over the next ten years.*

Instructions: Please fill out the table below. Most organizations have one Service Area; however, if your organization is comprised of multiple Service Areas, please provide location, population, and projections for Service Area #'s 2, 3, et cetera, as appropriate.

**TABLE 4.1 – CURRENT AND FUTURE POPULATION WITHIN YOUR SERVICE AREA**

<i>Establish population and estimate projections within your service area (or service areas if more than one)</i>				
	<b><i>Location/Discipline Descriptor (from Question #3 above)</i></b>	<b><i>Year 2000 Population</i></b>		<b><i>Year 2014 Projected Population</i></b>
<b><i>Service Area #1</i></b>				
<b><i>Service Area #2</i></b>				
<b><i>Service Area #3</i></b>				
<b><i>Service Area #4</i></b>				
<b><i>Service Area #5</i></b>				
<b><i>Service Area #6</i></b>				
<b><i>Service Area #7</i></b>				
<b><i>Service Area #8</i></b>				
<b><i>...</i></b>				
<b><i>Service Area # "N"</i></b>				
<b><i>Comments:</i></b>				

<b><i>Examples</i></b>				
<b><i>Service Area #1</i></b>	<b><i>Utopia Police &amp; Fire</i></b>	<b><i>80,865</i></b>		<b><i>122,316*</i></b>
<b><i>Service Area #2</i></b>	<b><i>Avalon Police</i></b>	<b><i>9,008</i></b>		<b><i>11,886**</i></b>
<b><i>Service Area #3</i></b>	<b><i>Heavenly County Fire, SO, &amp; PW</i></b>	<b><i>1,223,499</i></b>		<b><i>1,614,381**</i></b>
<b><i>Comments: Based upon statistical trends over the last 10 years:</i></b>				
<b><i>*Figure reflects a 3.0% per year projected population growth in Utopia</i></b>				
<b><i>**Figures reflect a 2.0% per year projected population growth in both the City of Avalon and Heavenly County</i></b>				

Note: Refer to California Department of Finance Demographic Research Unit 2000 Census URL at <http://www.dof.ca.gov/HTML/DEMOGRAP/table1.xls> for year 1990 and 2000 city and county population data and growth percentages)

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

5. a) For each Service Area, pick the busiest "A", "B", and "C" shift for a typical week (e.g., possibly Monday for "A" shift, and Friday or Saturday for "B" and "C" shifts). Identify how many potential broadband (BB) wireless device users and how many vehicles are deployed for each of the busiest "A", "B", and "C" shifts (cover number of radio users on each shift overlap and each shift-plus-special-detail). We're looking for the typical weekly high (peak) number(s) here.

Please fill out the table below. Some agencies have one Service Area; however, if your organization is comprised of multiple Service Areas, supply wireless broadband personnel and vehicular information requested for the 2<sup>nd</sup>, 3<sup>rd</sup>, et cetera, Service Areas as appropriate.

**TABLE 5.1.A – CURRENT AND PROJECTED NUMBERS OF  
AGENCY WIRELESS BROADBAND EQUIPPED OR  
CAPABLE PERSONNEL AND VEHICLES**

	Service Area #1		Service Area #2		Service Area #3	
	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years
<b>Potential Broadband Wireless Device Users</b>						
○						
○						
○						
○						
○						
○						
<b>CHP Example:</b>						
○ Capitol Protection Personnel	6	9	7	11		
○ Traffic Patrol Personnel, Airborne					2	3
○ Traffic Patrol Personnel, Ground					16	24
<b>Vehicles</b>						
○						
○						
○						
○						
○						
○						

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

	Service Area #1		Service Area #2		Service Area #3	
	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years
<b>Vehicles (continued)</b>						
<b>CHP Example:</b>						
○ Capitol Protection B&W sedans	1	1	1	1		
○ Air Ops Helicopter					1	1
○ Air Ops Fixed Wing Aircraft					1	1
○ Traffic Patrol – four (or more) wheeled vehicles					10	15
○ Traffic Patrol Motorcycles					3	4

	Service Area #4		Service Area #5		Service Area #6	
	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years
<b>Potential Broadband Wireless Device Users</b>						
○						
○						
○						
○						
○						
○						
<b>Vehicles</b>						
○						
○						
○						
○						
○						
○						

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

*b) How many wireless broadband equipped or broadband capable devices (e.g., mobile data computers, handheld computers, mobile printers, CAMcorders, et cetera) does your organization currently employ on existing systems; and, how many do you predict your organization will have operational on a future Public Safety/Public Service wireless voice and/or data communications systems within ten years?*

Please fill out the tables on the following two pages. Some agencies have one Service Area; however, if your organization is comprised of multiple Service Areas, supply wireless broadband equipped or capable device projections for the 2<sup>nd</sup>, 3<sup>rd</sup>, et cetera, Service Areas as appropriate.

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

**TABLE 5.1.B – CURRENT AND PROJECTED NUMBERS OF  
AGENCY WIRELESS BROADBAND EQUIPPED OR  
CAPABLE DEVICES**

<i>Enter current #'s and projected number migrating to future public safety/public service wireless system(s) within the next ten years for each unique Service Area</i>								
	<i>Service Area #1</i>		<i>Service Area #2</i>		<i>Service Area #3</i>			
<i>Broadband Wireless Device Types</i>	<i>Current #</i>	<i>Projected # in ten years</i>		<i>Current #</i>	<i>Projected # in ten years</i>		<i>Current #</i>	<i>Projected # in ten years</i>
<i>Mobile Data Computers</i>								
○								
<i>Handheld Computers</i>								
○								
<i>Mobile Image Scanners</i>								
○ <i>Fingerprint</i>								
○ <i>Photo</i>								
○								
<i>Radio Frequency ID Tag &amp; Bracelet Readers (e.g., real-time inventory assessment, patient stats, et cetera)</i>								
<i>Geo-Location Systems (to pinpoint resource and personnel whereabouts)</i>								
<i>On-board Signaling Systems (to adjust traffic light sequence, interrogate transportation regarding traffic status)</i>								
<i>Mobile Printers</i>								
<i>Video Transmission &amp; Recording Devices)</i>								
○ <i>Robotic</i>								
○ <i>Airborne</i>								
○ <i>Remote fixed</i>								
○								
○								
<i>Mobile/Remote Sensors or Monitors</i>								
○ <i>SCADA</i>								
○ <i>Biometric</i>								
○ <i>Intrusion</i>								
○ <i>Perimeter</i>								
○								
○								

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

**TABLE 5.1.B (CONTINUED FROM PREVIOUS PAGE)**

<i>Enter current #'s and projected number migrating to future public safety/public service wireless system(s) within the next ten years for each unique Service Area</i>								
	<i>Service Area #4</i>		<i>Service Area #5</i>		<i>Service Area #6</i>			
<i>Broadband Wireless Device Types</i>	<i>Current #</i>	<i>Projected # in ten years</i>		<i>Current #</i>	<i>Projected # in ten years</i>		<i>Current #</i>	<i>Projected # in ten years</i>
<i>Mobile Data Computers</i>								
○								
<i>Handheld Computers</i>								
○								
<i>Mobile Image Scanners</i>								
○ <i>Fingerprint</i>								
○ <i>Photo</i>								
○								
<i>Radio Frequency ID Tag &amp; Bracelet Readers (e.g., real-time inventory assessment, patient stats, et cetera)</i>								
<i>Geo-Location Systems (to pinpoint resource and personnel whereabouts)</i>								
<i>On-board Signaling Systems (to adjust traffic light sequence, interrogate transportation regarding traffic status)</i>								
<i>Mobile Printers</i>								
<i>Video Transmission &amp; Recording Devices)</i>								
○ <i>Robotic</i>								
○ <i>Airborne</i>								
○ <i>Remote fixed</i>								
○								
○								
<i>Mobile/Remote Sensors or Monitors</i>								
○ <i>SCADA</i>								
○ <i>Biometric</i>								
○ <i>Intrusion</i>								
○ <i>Perimeter</i>								
○								
○								

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

6. *Identify the broadband applications your organization envisions deploying in building out future high speed data systems. Include how often you envision the application being used (everyday or occasionally), and the priority (1[**highest**] through 10 [**lowest**]) of the application to your organization.*

Please fill out the table below. Many organizations have one Service Area; however, if your organization is comprised of multiple Service Areas, provide projections for Service Area #'s 2, 3, ..."n", et cetera, as appropriate.

**TABLE 6.1 - PROJECTED ORGANIZATIONAL BROADBAND  
APPLICATION REQUIREMENTS – Frequency and Priority of Use**

<i>Organization's Estimate of 4.9 GHz Applications Use</i>	<i>Need Everyday</i>	<i>Need Infrequently</i>	<i>Priority (1 thru 10)</i>
<b><i>Service Area #1 for the following applications:</i></b>			
<i>a. Image transfer (e.g., mug shot, finger print, et cetera)</i>			
<i>b. Real time access to federal, state, and local databases</i>			
<i>c. Real time video</i>			
<i>d. Airborne video downlink (requires FCC waiver)</i>			
<i>e. Client device file download/upload</i>			
<i>f. On-scene "Situation Awareness" GIS map display (real time overview map showing location of resources and personnel)</i>			
<i>g. Mobile devices (laptop and handhelds) access to multimedia databases</i>			
<i>h. Access to Internet resources (satellite imagery, other data etc.)</i>			
<i>i. Access to building/facility drawings (CAD)</i>			
<i>j. Access to latest department briefings and crime reports</i>			
<i>k. Ad-hoc self forming network for sharing of on-scene incident broadband information; i.e., providing incident or event command and control (or C<sup>3</sup>, C<sup>3</sup>I, or C<sup>4</sup>)<sup>3</sup> capabilities via an Incident Management or Command System [IMS, or ICS]</i>			

<sup>3</sup> C<sup>3</sup> equates to Command, Control, and Communications Systems; C<sup>3</sup>I equates to Command, Control, Communications, and Intelligence; C<sup>4</sup> equates to Command, Control, Communications, and Computing Systems. Note: Command, Control, Communications and Intelligence comprises systems providing capabilities that enable *the military forces of the United States* [**substitute public safety agencies**] to generate, use, and share the information necessary to survive and succeed on every mission.

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

<i>Organization's Estimate of 4.9 GHz Applications Use</i>	<i>Need Everyday</i>	<i>Need Infrequently</i>	<i>Priority (1 thru 10)</i>
• Fires, HAZMAT, and multicasualty incidents			
• Multijurisdiction and multi-agency disaster incidents			
• Wide-area search and rescue missions			
• Planned events; e.g., celebrations, parades, concerts			
<i>l. Remote sensor monitoring</i>			
• Supervisory Control and Data Acquisition (SCADA)			
• Web CAM			
• Robotic CAM			
• Intrusion Alarms			
• System anomalies			
• Biometric monitoring (e.g., from mobile 12-lead EKG units, Firefighter biometric vests, et cetera)			
• Detection of chemical, biological, radiological, and other hazards			
• Perimeter alarms			
• Radio frequency identification (RF ID) tags (inventory assessment/control)			
• RF ID Bracelets (Patient stats)			
<i>m. Voice recognition and activation</i>			
<i>n. Software upgrades or software tech support</i>			
<i>o. Update messaging signs on roads</i>			
<i>p. Emergency Alert of resources available</i>			
<i>q. Emergency medical reporting</i>			
<i>r. Contingency restoration, recovery, and/or integration of fire, police, and ambulance voice communications (via VoIP)</i>			
<i>s. Making use of 4.9 GHz coverage by extending it inside strategic buildings to access external public safety data networks</i>			
<i>t. Other (identify):</i>			
<i>u. Other (identify):</i>			
<b><i>Repeat for each separate Service Area within which your agency operates (if more than one)</i></b>			

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

7. *What is your intended system use of these frequencies –a new system, replacement of an existing system, or expansion of an existing system? When do you envision starting and finishing deployment of a 4.9 GHz broadband wireless data system?*

Instructions: Please fill out the table below. Most organizations have one Service Area; however, if your organization is comprised of multiple Service Areas, fill out your projected Start and Finish dates under the appropriate column header; i.e., if you are building a new system to accommodate your Service Area, enter your estimated Start and Finish dates under “New System”

**TABLE 7.1 – ORGANIZATION’S RADIO SYSTEM DEPLOYMENT PLANS**

Projected Systems Use and Deployment Time Frames						
	<i>New System</i>		<i>Existing System</i>			
			<i>Replacement</i>		<i>Expansion</i>	
	<i>Start</i>	<i>Finish</i>	<i>Start</i>	<i>Finish</i>	<i>Start</i>	<i>Finish</i>
<i>Service Area #1</i>						
<i>Service Area #2</i>						
<i>Service Area #3</i>						
<i>Service Area #4</i>						
<i>Service Area #5</i>						
<i>Service Area #6</i>						
<i>Service Area #7</i>						
<i>Service Area #8</i>						
<i>Service Area #9</i>						
...						
<i>Service Area “N”</i>						
<i>Comments (if any):</i>						

# SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>

8. *List the individual entities that will become bona fide users of your organization's envisioned broadband wireless data system(s). Include any outside agencies that will be part of your system. Note if these users are certain, or just potential users.*

TABLE 8. – BONA FIDE USERS OF YOUR ORGANIZATION’S ENVISIONED WIRELESS DATA SYSTEM

[illegible]

9. *Has your organization considered hosting other agencies or joining with other agencies in a multi-jurisdictional, multi-agency system?*

[illegible]

# **ATTACHMENT II**

**47 Code of Federal Regulations (CFR)  
§90.1203 and §90.523**

**Eligibility For Systems Operating In The 4.9  
GHz Frequency Band**

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

**47 Code of Federal Regulations (CFR) §90.1203 Eligibility  
and  
47 Code of Federal Regulations (CFR) §90.523 Eligibility**

**§90.1203 Eligibility. -**

(a) Entities providing public safety services as defined under section 90.523 are eligible to hold a Commission license for systems operating in the 4940–4990 MHz band. All of the requirements and conditions set forth in that section also govern authorizations in the 4940–4990 MHz band.

(b) 4.9 GHz band licensees may enter into sharing agreements or other arrangements for use of the spectrum with entities that do not meet these eligibility requirements. However, all applications in the band are limited to operations in support of public safety.

**§90.523 Eligibility. -** This section implements the definition of public safety services contained in 47 USC §337(f)(1). The following are eligible to hold Commission authorizations for systems operating in the 764-776 MHz and 794-806 MHz frequency bands:

(a) State or local government entities. Any territory, possession, state, city, county, town, or similar State or local governmental entity is eligible to hold authorizations in the 764-776 MHz and 794-806 MHz frequency bands.

(b) Nongovernmental organizations. A nongovernmental organization (NGO) that provides services, the sole or principal purpose of which is to protect the safety of life, health, or property, is eligible to hold an authorization for a system operating in the 764-776 MHz and 794-806 MHz frequency bands for transmission or reception of communications essential to providing such services if (and only for so long as) the NGO applicant/licensee:

(1) Has the ongoing support (to operate such system) of a state or local governmental entity whose mission is the oversight of or provision of services, the sole or principal purpose of which is to protect the safety of life, health, or property;

(2) Operates such authorized system solely for transmission of communication essential to providing services the sole or principal purpose of which is to protect the safety of life, health, or property; and

(3) All applications submitted by NGOs must be accompanied by a new, written certification of support (for the NGO applicant to operate the applied-for system) by the state or local governmental entity referenced in paragraph (b)(1) of this section.

(c) All NGO authorizations are conditional. NGOs assume all risks associated with operating under conditional authority. Authorizations issued to NGOs to operate systems in the 764-776 MHz and 794-806 MHz frequency bands include the following condition: If at any time the supporting governmental entity (see paragraph (b)(1)) notifies the Commission in writing of such governmental entity's termination of its authorization of a NGO's operation of a system in the 764-776 MHz and 794-806 MHz frequency bands, the NGO's application shall be dismissed automatically or, if authorized by the Commission, the NGO's authorization shall terminate automatically.

(d) Paragraphs (a) and (b) notwithstanding, no entity is eligible to hold an authorization for a system operating in the 764-776 MHz and 794-806 MHz frequency bands on the basis of services, the sole or principal purpose of which is to protect the safety of life, health or property, that such entity makes commercially available to the public.

Historical Note: Subsection (b) revised by order in Docket No. 96-86, effective November 6, 2000, 65 FR 53641. For Second Memorandum Opinion see 21 CR 868.

# ATTACHMENT III

Links to additional 4.9 GHz information

**SURVEY FOR DETERMINING EACH ELIGIBLE AGENCY'S NEED FOR  
PUBLIC SAFETY FREQUENCIES IN THE 4.9 GHZ BAND DUE JUNE 1<sup>ST</sup>**

Internet addresses for a few websites providing multiple links to  
additional 4.9 GHz information:

SITE	INTERNET ADDRESS
APCO Automated Frequency Coordination	<a href="http://www.apcointl.org/frequency/4-9GHz/4-9GHz.htm">http://www.apcointl.org/frequency/4-9GHz/4-9GHz.htm</a>
Region 6 (Northern CA)	<a href="http://www.rgn6rpc.org/4940main.htm">http://www.rgn6rpc.org/4940main.htm</a>
CPRA (Southern CA)	<a href="http://www.cpra.org/newsctr.htm">http://www.cpra.org/newsctr.htm</a>
PSWN	<a href="http://www.pswn.gov/admin/librarydocs12/4_9_Band_Fact_Sheet.doc">http://www.pswn.gov/admin/librarydocs12/4_9_Band_Fact_Sheet.doc</a>
TROPOS Networks	<a href="http://www.troposnetworks.com/pdf/Spectrum_Whitepaper.pdf">http://www.troposnetworks.com/pdf/Spectrum_Whitepaper.pdf</a>
Public Safety Communications Resource Center	<a href="http://www.publicsafetycommunications.org/Wi-Fi.php">http://www.publicsafetycommunications.org/Wi-Fi.php</a>

**EXHIBIT C.2.A**

Synopsized Survey Results - Summary A :  
Agency Inputs Regarding Resources and Technologies

## Summary of Resources and Technology Related Agency Inputs through 07/11/04

[illegible]

Total # of Responses			98						Peak Shift Personnel			Peak Shift Vehicles			Broadband Devices																		Broadband Devices																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
# of Counties with No County/City Responses			31																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

Total # of Responses		98			Peak Shift Personnel								Peak Shift Vehicles								Broadband Devices																Broadband Devices																																																																																																																																																																																																																																																																									
# of Counties with No County/City Responses		31			A Shift		B Shift		C Shift		A Shift		B Shift		C Shift		Mobile Data Computers		Handheld Computers		Mobile Image Scanners				Radio ID Tag or Bracelet		Geo-Location Systems		On-board Signaling Systems		Mobile Printers		Video Transmission & Recording Devices				Mobile & Remote Sensors or Monitors																																																																																																																																																																																																																																																																									
County	2000 Population	Percent of Total State 2000 Population	Current # of Users	# Of Users in 10 Years	Current # of Users	# Of Users in 10 Years	Current # of Users	# Of Users in 10 Years	Current # of Users	# Of Users in 10 Years	Current # of Users	# Of Users in 10 Years	Current # of Users	# Of Users in 10 Years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected

Total # of Responses		98		Peak Shift Personnel								Peak Shift Vehicles								Broadband Devices																Broadband Devices															
# of Counties with No County/City Responses		31		A Shift		B Shift		C Shift		A Shift		B Shift		C Shift		Mobile Data Computers		Handheld Computers		Mobile Image Scanners				Radio ID Tag or Bracelet		Geo-Location Systems		On-board Signaling Systems		Mobile Printers		Video Transmission & Recording Devices				Mobile & Remote Sensors or Monitors															
County	2000 Population	Percent of Total State 2000 Population	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current # of Users	# Of Users In 10 Years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years	Current #	Projected # in ten years			
Shasta County																																																			
Local, State, & EMS Totals:	163,256	0.482%	375	493	-	-	-	-	361	475	-	-	-	-	-	124	-	567	-	115	-	190	-	4,323	-	690	-	475	-	120	-	37	-	4	-	161	-	-	-	78	-	37	-	57	-	-	-	28			
Local Government			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
State Government			346	457	-	-	-	-	346	457	-	-	-	-	-	115	-	457	-	115	-	172	-	4,234	-	571	-	457	-	115	-	32	-	3	-	156	-	-	-	78	-	19	-	39	-	-	-	24			
Private EMS Providers			29	36	-	-	-	-	15	18	-	-	-	-	-	9	-	110	-	-	-	18	-	89	-	119	-	18	-	5	-	5	-	1	-	5	-	-	-	-	-	18	-	18	-	-	-	4			
Sierra County																																																			
Local, State, & EMS Totals:	3,555	0.010%	67	87	-	-	-	-	67	87	-	-	-	-	-	23	-	89	-	22	-	34	-	800	-	111	-	87	-	23	-	7	-	2	-	31	-	-	-	15	-	5	-	9	-	-	-	6			
Local Government			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
State Government			66	86	-	-	-	-	66	86	-	-	-	-	-	22	-	86	-	22	-	33	-	798	-	108	-	86	-	22	-	6	-	1	-	30	-	-	-	15	-	4	-	8	-	-	-	5			
Private EMS Providers			1	1	-	-	-	-	1	1	-	-	-	-	-	1	-	3	-	-	-	1	-	2	-	3	-	1	-	1	-	1	-	1	-	1	-	-	-	1	-	1	-	-	-	1					
Siskiyou County																																																			
Local, State, & EMS Totals:	44,301	0.131%	195	257	-	-	-	-	191	252	-	-	-	-	-	65	-	277	-	62	-	98	-	2,314	-	342	-	252	-	64	-	19	-	3	-	86	-	-	-	42	-	16	-	26	-	-	-	14			
Local Government			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
State Government			187	247	-	-	-	-	187	247	-	-	-	-	-	62	-	247	-	62	-	93	-	2,289	-	309	-	247	-	62	-	17	-	2	-	84	-	-	-	42	-	11	-	21	-	-	-	13			
Private EMS Providers			8	10	-	-	-	-	4	5	-	-	-	-	-	3	-	30	-	-	-	5	-	25	-	33	-	5	-	2	-	2	-	1	-	2	-	-	-	5	-	5	-	-	-	1					
Solano County																																																			
Local, State, & EMS Totals:	394,542	1.165%	1,120	3,458	-	-	-	-	1,031	2,451	-	-	-	-	386	949	41	1,254	12	593	12	724	26	7,017	-	1,769	74	1,298	4	643	-	211	-	10	8	571	2	159	120	720	-	687	2	708	-	644					
Local Government			515	2,667	-	-	-	-	461	1,703	-	-	-	-	386	750	41	285	12	416	12	416	26	260	-	601	74	550	4	455	-	152	-	5	8	319	2	159	120	600	-	615	2	605	-	600					
State Government			535	705	-	-	-	-	535	705	-	-	-	-	177	-	705	-	177	-	265	-	6,542	-	882	-	705	-	177	-	48	-	4	-	240	-	-	-	120	-	29	-	60	-	36						
Private EMS Providers			70	86	-	-	-	-	35	43	-	-	-	-	22	-	264	-	-	-	43	-	215	-	286	-	43	-	11	-	11	-	1	-	12	-	-	-	43	-	43	-	8								
Sonoma County																																																			
Local, State, & EMS Totals:	458,614	1.354%	755	1,244	-	-	-	-	714	1,194	-	-	-	-	500	1,099	-	951	-	1,074	-	1,160	-	3,170	500	1,699	-	794	-	1,087	-	43	-	23	-	414	-	-	-	60	-	72	-	175	-	125					
Local Government			450	850	-	-	-	-	450	850	-	-	-	-	500	1,000	-	350	-	1,000	-	1,000	-	200	500	1,000	-	450	-	1,000	-	10	-	20	-	300	-	-	-	10	-	10	-	100	-	100					
State Government			223	294	-	-	-	-	223	294	-	-	-	-	-	74	-	294	-	74	-	110	-	2,721	-	367	-	294	-	74	-	20	-	2	-	100	-	-	-	50	-	12	-	25	-	15					
Private EMS Providers			82	100	-	-	-	-	41	50	-	-	-	-	25	-	307	-	-	-	50	-	249	-	332	-	50	-	13	-	13	-	1	-	14	-	-	-	50	-	50	-	10								
Stanislaus County																																																			
Local, State, & EMS Totals:	446,997	1.320%	262	337	-	-	-	-	222	289	-	-	-	-	-	85	-	540	-	60	-	139	-	2,463	-	624	-	289	-	73	-	30	-	3	-	96	-	-	-	41	-	59	-	70	-	22					
Local Government			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
State Government			182	240	-	-	-	-	182	240	-	-	-	-	-	60	-	240	-	60	-	90	-	2,220	-	300	-	240	-	60	-	17	-	2	-	82	-	-	-	41	-	10	-	21	-	13					
Private EMS Providers			80	97	-	-	-	-	40	49	-	-	-	-	-	25	-	300	-	-	-	49	-	243	-	324	-	49	-	13	-	13	-	1	-	14	-	-	-	49	-	49	-	9							
Sutter County																																																			
Local, State, & EMS Totals:	78,930	0.233%	136	179	-	-	-	-	129	170	-	-	-	-	-	46	-	214	-	41	-	70	-	1,529	-	259	-	170	-	44	-	14	-	2	-	58	-	-	-	28	-	16	-	23	-	11					
Local Government			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
State Government			122	161	-	-	-	-	122	161	-	-	-	-	-	41	-	161	-	41	-	61	-	1,486	-	201	-	161	-	41	-	11	-	1	-	55	-	-	-	28	-	7	-	14	-	9					
Private EMS Providers			14	18	-	-	-	-	7	9	-	-	-	-	-	5	-	53	-	-	-	9	-	43	-	58	-	9	-	3	-	3	-	1	-	3	-	-	-	9	-	9	-	2							
Tehama County																																																			
Local, State, & EMS Totals:	56,039	0.165%	285	377	-	-	-	-	229	320	-	-	-	-	22	103	5	320	-	67	-	106	-	2,413	-	363	-	264	-	70	-	21	-	4	-	90	-	-	-	1	46	-	19	-	30	-	17				
Local Government			80	107	-	-	-	-	29	56	-	-	-	-	22	34	5	25	-	2	-	2	-	1	-	1	-	-	-	3	-	1	-	1	-	-	-	1	2	-	1	-	1	-	1						
State Government			195	257	-	-	-	-	195	257	-	-	-	-	-	65	-	257	-	65	-	97	-	2,381	-	321	-	257	-	65	-	18	-	2	-	88	-	-	-	44	-	11	-	22	-	14					
Private EMS Providers			10	13	-	-	-	-	5	7	-	-	-	-	-	4	-	38	-	-	-	7	-	31	-	41	-	7	-	2	-	2	-	1	-	2	-	-	-	7	-	7	-	2							
Trinity County																																																			
Local, State, & EMS Totals:	13,022	0.038%	114	150	-	-	-	-	113	149	-	-	-	-	-	38	-	156	-	37	-	57	-	1,364	-	193	-	149	-	38	-	11	-	2	-	51	-	-	-	25	-	8	-	15	-	9					
Local Government			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
State Government			111	147	-	-	-	-	111	147	-	-	-	-	-	37	-	147	-	37	-	55	-	1,356	-	183	-	147	-	37	-	10	-	1	-	50	-	-	-	25	-	6	-	13	-	8					
Private EMS Providers			3	3	-	-	-	-	2	2	-	-	-	-	-	1	-	9	-	-	-	2	-	8	-	10	-	2	-	1	-	1	-	1	-	1	-	-	-	2	-	2	-	1							
Tulare County																																																			
Local, State, & EMS Totals:	368,021	1.087%	391	712	-	-	-	-	383	619	-	-	-	-	86	373	-	791	-	118	-	211	-	4,280	-	903	-	563	-	148	-	44	-	8	-	217	-	-	-	1,828	-	68	-	277	-	130					
Local Government			-	203	-	-	-	-	25	150	-	-	-	-	86	245	-	115	-	10	-	10	-	100	-	100	-	94	-	30	-	4	-	4	-	60	-	-	-	1,755	-	10	-	200	-	100					
State Government			325	429	-	-	-	-	325	429	-	-	-	-	-	108	-	429	-	108	-	161	-	3,980	-	536	-	429	-	108	-	30	-	3	-	146	-	-	-	73	-	18	-	37	-	22					
Private EMS Providers			66	80	-	-	-	-	33	40	-	-	-	-	-	20	-	247	-	-	-	40	-	200	-	267	-	40	-	10	-	10	-	1	-	11	-	-	-	-	40	-	40	-	8						
Tuolumne County																																																			
Local, State, & EMS Totals:	54,501	0.161%	263	450	-	-	-	-	258	444	-	-	-	-	-	117	-	430	-	98	-	211	-	3,239	-</																										

**EXHIBIT C.2.B**

Synopsized Survey Results - Summary B :  
Agency Inputs Regarding Applications and their Priorities

[illegible]

Page 2 of 2